

# math NEWS

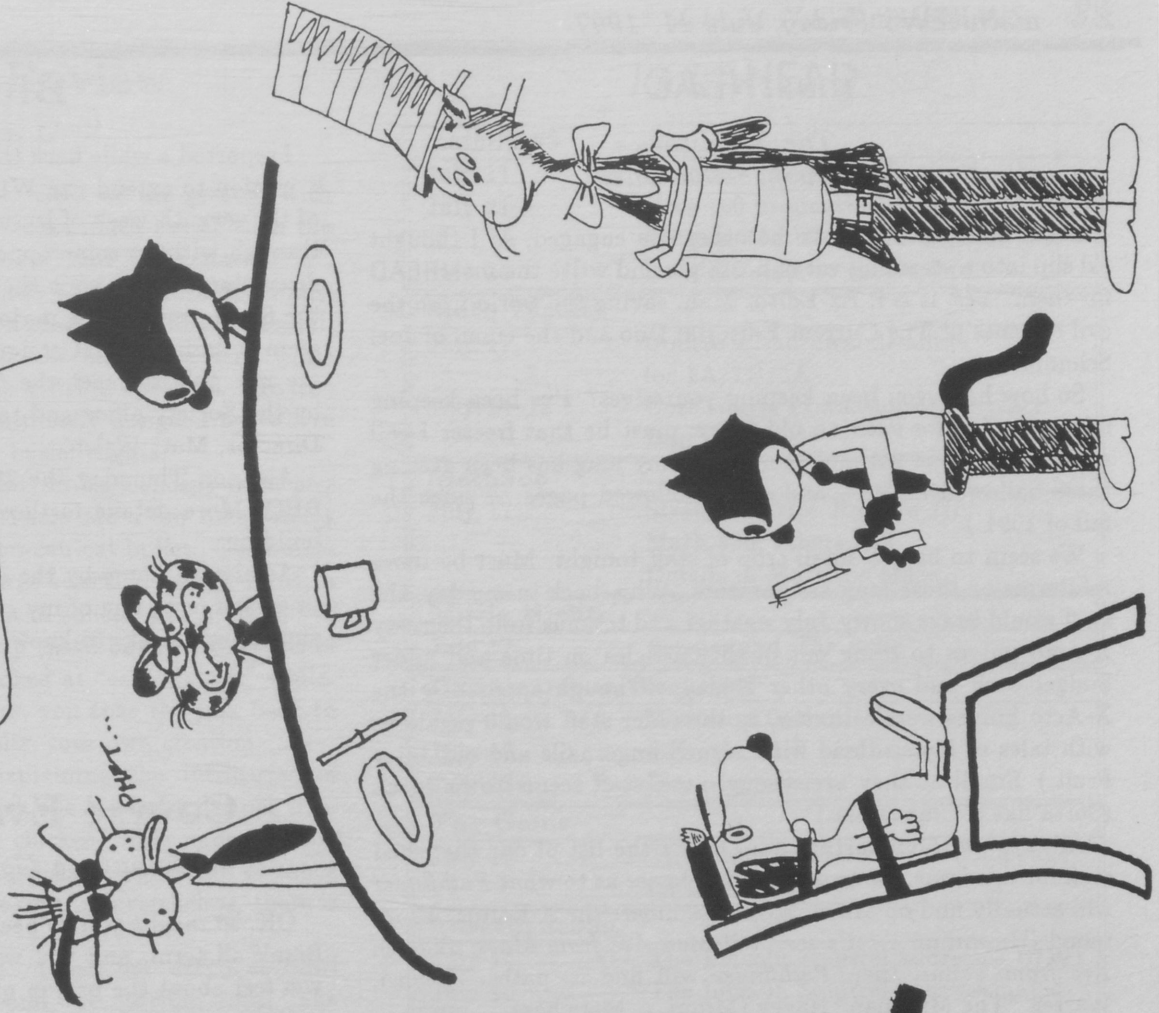
Volume 74, Issue 5

Friday, July 11, 1997

Coming soon to a theatre near you...  
T R A N S I T I N I O ' S

## RESERVOIR CATS

WHAT DO YOU MEAN YOU DON'T BELIEVE IN TIPPING?



NO.  
WHAT DO THEY CALL MEDIUM MIX?  
WOW. HOW ABOUT KAL KAN?  
YOU KNOW WHAT THEY CALL FANCY FEAST IN PARIS?  
LE FEAST ROYALE.  
IT'S MEOW MIX, JUST LE MEOW MIX.  
DON'T KNOW... I DON'T EAT THAT STUFF.



## mastHEAD

The X Editor:  
The Goof Is Out There

Brian and Matt seem to be otherwise engaged, so I thought I'd slip into a steaming vat of nostalgia and write the mastHEAD for them. Yes, it is I, Ex-Editor Man, saving the world from the evil clutches of The Current Editorial Duo and the ennui of Joel Schumacher.

So how have you been keeping yourselves? I've been keeping relatively fine for such an old fogey; must be that freezer I call a lab. (For those without scorecards, my mug has been gracing these hallowed halls — and these hollowed pages — since the fall of 1991.)

We seem to have a small crop of staff tonight. Must be those midterms or those long assignments. Why, back in *my* day, the staff would brave snowy July weather and tetanus from the rusty X-Acto knives to bring out quality articles on time and under budget each and every other Friday. (Though apparently the X-Acto knives were a luxury, as the older staff would regale us with tales of layout done with ragged fingernails and old Juicy Fruit.) Small as they are, though, our staff seems to be loyal. (Sorta like a Chihuahua.)

Anyway, without further ado, here's the list of our cherished staff for this issue, along with their guesses as to what *Pathfinder* will actually find on Mars: Mike "Hammer: the X Editor" Hammond (Hmmm... let's see... if *Men Are from Mars, Women Are from Venus*, then *Pathfinder* will find... paths. Yeah.), Warren "The Milkman" Hagey (Mmm... Mars bars... mmm... nougat... uh... nothing.), Chris McGuire (The place where all those deranged postal workers come from.), Richard Bilson (The first signs of intelligent life in the universe.) and John Swan (Statisticians, what else?). [Ahh... so that's where they come from. — LatrellEd.]

Thanks goes to Domino's Pizza for their wonderful pizza (which makes a *most* yummy supper!) and to Marion at Graphic Services, 'cause she do that voodoo that she do so well.

Brian "Latrell" Fox (The Bombshelter's fryer.)  
Matt "So-Krates" Walsh (I don't believe in Mars...  
it's just a conspiracy of astronomers.)

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Your bitchin' topless editors: Brian "Calculus Cowboy" Fox, Matt "So-Krates" Walsh

## Blue Sayz

I reported a while back that the Faculty Council had approved a motion to extend the WD deadline in the Faculty to the end of the seventh week of lectures; it appears that this is not going through without some opposition. There has also been a lot of discussion lately about the Major Average; last Fall term was the first term that the major average took effect, and the results seem to indicate that a significant number of 3rd year students are not able to meet the 65% average. I invite you to come by the Society office and talk to either myself or the Academic Director, Matt Walsh.

Also, on Thursday the 28th, there will be a Student-Faculty BBQ! More details forthcoming. Watch for signs around the building.

As always, come by the exec office (MC 3035/3039) and talk to myself or to one of my co-exec. We're there to represent you and we would like to know your opinions on things.

Blue

## Course Evaluation Week

Coming to a Core Course near you...

OK, so maybe you've been bitching about a certain Professor Blank all term, and you want to tell someone official-like how you feel about the prof in question.

Or maybe you've been falling asleep in your first-year math course because of its tortoise-like pace, and would really like them to up the tempo for future generations of frosh.

Or maybe you're having a lot of fun in one of your courses, think the prof is awesome, and you want the world to know it.

You've probably got an opinion one way or the other, though, and you probably would like some action on your opinion. Well, your chance to be heard approaches, and you don't have to do anything more strenuous than attend class.

The Course Evaluations for the Faculty Core (All the first and second year honours MATH courses, plus CS 130, 134, 230, 246 and STAT 230, 231) are happening next week. What's going to happen, is that one of our trusty MathSoc volunteers will come to your class and conduct the evaluation. This will take up the first ten minutes of a lecture, so please be on time. Your prof has been asked to show up ten minutes late, so you don't have to worry about him or her seeing what your writing. And don't worry about this affecting your grade; the evaluations are completely anonymous, and the professor doesn't even receive them until the term marks have been submitted.

Also remember that the results of previous terms' evaluations are available for your perusal in the Math Society office. In addition to provide food for thought to future generations of people selecting courses, your opinions are weighted when professors are considered for promotions and tenure. So please do your part and try to make it in on time for your classes next week... just this once!

Matt Walsh  
Academics Director, MathSoc

# Restaurant Review

## The Mongolian Grill

Upon walking into the Mongolian Grill we are greeted with a very pleasant decor. It definitely looks much better than the space's previous occupants, "Daddy-o's" and "K-W Rotisserie". The chairs are comfortable and gentle pastels adorn the walls. The restaurant is clean, new and is a pleasure to look at. Familiar tunes entertain the patrons from the inside speakers, while attracting new customers from the outside speakers. To the right of the main entrance is a fantastically designed bar where patrons can wait for a table on the busier nights.

The Mongolian Grill is a different dining concept from any other restaurant in the UW area. There are a few menu items but the main attraction is an all-you-can-eat buffet. Customers go up to the buffet which has a large selection of raw meat, a plethora of vegetables, a cornucopia of sauces and a myriad of herbs and spices. The patrons fill up small bowls with items of their choice and then the mix is cooked at "center stage" while-you-wait. After a few short minutes, you take the mix back to the table and enjoy what is, basically, your own creation.

The staff is very courteous, explaining the intricacies of putting together the mix. "Only pick one kind of meat per trip. Otherwise you could overcook the chicken while undercooking the beef. Also make sure you put at least 2 ladles full of sauce because most evaporates during cooking." Nevertheless, there is still a very large room for error.

I went to the buffet four times. I had one excellent bowl of food, two "pretty good" bowls and one horrible bowl. The horrific bowl was probably my own fault. I mixed turkey and carrots with hot barbecue sauce and teriyaki sauce. To make it even more putrid, I added some "Mongolian Fire" (hot sauce) and a heaping spoonful of pineapples. Yuck. My first bowl was the best when I mixed beef, bean sprouts and water chestnuts with soy and teriyaki sauce. It was exquisite.

The food is very good and the meat and the vegetables are obviously fresh. Nevertheless, I still felt like I had too much choice. The reason I eat out so much is because I know absolutely nothing about cooking. At the Mongolian Grill, this inadequacy hurt me. Looking back however, I probably should have known that pineapples and hot sauce would have been disgusting. I would highly recommend that the Mongolian Grill hire someone to stand around the buffet and give a hand to lost and confused customers such as myself.

The buffet costs \$9.95 for lunch and a few dollars more for dinner. It is slightly expensive but no more expensive than East Side Mario's or McGinnis and the quality at the Mongolian Grill seems much higher. At the Mongolian Grill, the price is competitive, the service is excellent and the atmosphere is spectacular, however I am still not sure how I feel about the concept. Sometimes, I felt like I was in a supermarket and other times, I felt like I was in a cafeteria. My reservations notwithstanding, I am gratefully appreciative that someone brought a new dining experience to the UW area and I would highly recommend Mongolian Grill. I'm sure with a little time and a little guidance, I could definitely come to enjoy this new player in the marketplace.

Asterix Rating: \* \* \* \* \* (out of seven)

Jonathan Ezer

# lookAHEAD

<b>mathNEWS</b>	
July 11	Issue #5 emerges from the depths
July 21	Issue #6 production night 6:30pm, MathSoc (MC 3038)
July 25	Issue #6 rises to the surface
<b>Math Faculty</b>	
July 11	Course withdrawal deadline for 1A/1B/2A
July 14-18	Core course evaluations take place Don't be late!
<b>MathSoc</b>	
July 17	Stratford Trip: <i>Richard III</i> Math \$30, others \$32 Details in MathSoc office
<b>Movie Nights</b>	
July 17	<i>Scream</i> and <i>The Relic</i>
<b>Brian's 2-four Weekend</b>	
July 11	Warm-up festivities
July 12	<b>Brian's 24<sup>th</sup> birthday</b>
July 13	Day of recovery
<b>The Game</b>	
July 19	The Game starts: see the homepage for more details
<b>Miscellaneous</b>	
July 14	The Lincoln Squirrel addresses U(W)
July 15	The Lincoln Squirrel is assassinated
July 16	Day of mourning



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## The Pseudo-Expert on Statistics

### Part 1: The Schools of Thought

As I look back in my textbook from STAT 330 (and remember the pain and suffering that went along with it), I notice that the range of topics and philosophies were quite diverse. Indeed, the courses I was required to take involving the dreaded four letter prefix provided me with a wealth of information that must be seen to be believed. But what fascinated me the most was the three different schools of thought that statistics encompasses. Being a statistician myself, I found that it was my duty to provide others who, because of STAT 230 and STAT 231, never found the joy and euphoria that one encounters when taking a statistics course with a number higher than 329.

Statistics, as you know, is the study of analyzing raw data and, using a various array of distributions (both discrete and continuous), create a valid conclusion about the said data points. However, how these data points are analyzed have caused great debate with statisticians, oft staying up until the wee hours of the morn just to agree on what variables to use. It is these debates which brings out the three philosophies and how they differ.

#### The Frequentist School

One of the statistical philosophies that exist is the frequentist school of thought. This school is the most prevalent of the three since the frequentists were the pioneers of statistics. The frequentists will look at a set of data points that are independent and identically distributed in some distribution and use either a UMVUE or a MLE. Really, it depends on what the statistician wants to do that day; if he (or she) wants to use a UMVUE, then so be it. (By the way, a UMVUE is a Uniformly Minimum Variance Unbiased Estimator and a MLE is a Maximum Likelihood Estimator, but I digress...)

So, our friendly frequentist has chosen the method of estimation that is best for the data points. But now what? Well, the statistician will create graphs, models and yes, the infamous confidence interval. The interpretation of the  $100(\alpha)\%$  confidence for the frequentists is that if we have many samples from the same distribution and each sample was put in a range for our estimated parameters, then  $100(\alpha)\%$  of these intervals shall include the true value for the parameters of interest. Of course, it should be noted that  $\alpha$  must be less than 1 but greater than 0.

Interestingly enough, the frequentist philosophy is taught to many students, especially to second year students who have a vague idea on statistics. It is a shame, in reality, because once students swear never to take a statistics course ever again, they slam the doors to the other philosophies that, in my opinion, are quite interesting.

#### The Bayesian School

A lesser known but equally beloved philosophy is the Bayesian School of thought. Named after some guy named (get ready for this) Bayes, the Bayesians believe in using the same distributions and use the same methods of finding models as their frequentist brethren. However, there are some differences that have caused heated debate. For one thing, Bayesians estimate parameters using a posterior distribution (or prior density). For those not acquainted with posterior distributions, these are prior data sets that have a known distribution with already estimated parameters. The prior density helps Bayesians produce Bayesian risk and the ever popular Bayesian estimator. As for the interpreta-

tion of the  $100(\alpha)\%$  confidence interval, Bayesians are not afraid to state that for  $100(\alpha)\%$  of the time, the parameters that are being estimated will lie in between the lower and upper bound. Frequentists disagree vehemently with Bayesians on this point and will be very quick to demonstrate this.

Often, Mathies will not be exposed to Bayesian philosophy until they reach their third year of statistics. But once a student is exposed to Bayesian thought, the result is highly rewarding.

#### The Samplist School

Finally, there is a school of thought known as the Sample Theorists (or the Samplists). Unlike the frequentist and the Bayesian, the Samplist does not believe in using distributions to estimate parameters. In fact, the Samplist's main tools in analyzing data points are the mean, the standard deviation and the confidence interval. The mean and standard deviations are easily calculated while the confidence interval needs only a Student t or a Gaussian table to determine the range of this interval.

The Samplist, however, is more concerned about bias and variability than calculations. Samplists oft ask questions even about how the sample was achieved. Such questions include:

- Is there bias in the sample which I received? If so, what kind of bias exists and what efforts were made to limit this bias?
- Do I need to stratify the data? Does the data need to be separated into distinct classes? What classes are required and how are they to be incremented?
- What attempt was made to limit the variability (both natural and man-made) of this sample? What types of variability exist?
- Is the confidence interval I have created relevant? What recommendations can I make that will improve the sample?
- How can I improve the survey or procedure that was used to create the data set? How can this be done given the resources (or lack thereof) that my employer has bestowed on me?
- Why I am even asking these blessed questions?

Indeed, this school of thought is ridiculed, ostracized and generally hated by Bayesians and frequentists. This philosophy has nonetheless found a home in the venerable institution that is StatsCan. Here, StatsCan has embraced the Samplists and have used their talents to create the best statistical establishment in the world (No, really... It is! Would the psuedo-expert lie to you?). Unfortunately, there is only one course that teaches the philosophy of the Samplist, and that is good old STAT 332. I just love that course!

So, there in a nutshell, are the three schools of statistics. All three schools are fascinating not only in their similarities but also in their differences. I personally encourage all Math students to take at least one third year STAT course, for not only will you be illuminated in everything you wanted to know about the normal and gamma distributions, but also you will be enlightened about frequentist, Bayesian and Samplist thought. Having been taught by Samplist, a Bayesian and plenty of frequentists, I am at peace with the tumultuous road that is statistics.

## gnomicGNUS

*What's This About?*

In case anyone has failed to keep up with the stunning saga of the ongoing attempts of the Gnomes of Gnostic to take over what's left of the world, let us simply say that Gnostic is a game... A game whose purpose and goal is to change its own rules, its own nature, and explore the outer reaches of the logical extremes of what is implied by the word "game". A game of Gnostic being played by denizens of the math faculty has recently been insidiously inserting itself into both *mathNEWS* and the administrative networks of the Math Society and of the Faculty itself.

In the past three issues of *mathNEWS*, you have learned of the initial ruleset of Gnostic, of some of the most significant changes which have taken place since the game began in January, and most recently of the Consordium scams, by which some cunning member of Gnostic were able to manipulate the game by forcing it to join various organizations of their own creation. This leads us into one of the main tools used by clever Gnomes.

*The Art Of Scamming*

In Gnostic, and in the systems of government it is intended to model, activity is restricted by laws and rules which restrict the sorts of things that players (or politicians) can do. But whatever the rules do not explicitly forbid is WIIIIIDE OPEN. Clever players will try to get around the rules by exploiting loopholes to serve their own ends. This is, in fact, one of the main points of Gnostic: to manipulate the game outside the kind of play that the rules SEEM to intend. In this game, following the letter of the law at the expense of the spirit of the law IS the spirit of the law.

When a player is able to exploit a loophole to gain some obvious advantage, this is called a scam. Recently, every one of the weekly Gnostic sessions seems to involve a scam of some sort.

*Scam The First*

In session 14, Will introduced a seemingly innocent rule creating "Companions of Who". There is an official title called "Who" which is sometimes applied to a player; Will's rule allowed players to pay Who five points to become a Companion of Who, after which any points which Who received or lost would also be received or lost by the Companion. Once a few players became Companions for the first time, they discovered that by giving points to Who successively, they could push their own scores up as high as they wanted, but that Who could, by spending those points, easily reduce them as low as he wished.

This kind of unstable situation brought on by drastic feedback is just really, really annoying.

A multi-hour series of judgements, debate proceedings and negotiations finally resulted in the three scamming players "winning" (which means gaining an extra vote). Congratulations to Brent, Will, and Adam...

*Scam The Second*

In session 15, a simple loophole was exploited by three scammers, namely Brent, Will, and Tim.

A seemingly simple rule introduced in March by Duane gave players points when voting with dice. The method for secret vot-

ing has traditionally been to represent the vote with the parity of the number on a die placed under a cup. Duane's rule added an interesting psychological element to the game by giving the player who voted with the least common number that number of points whenever the vote was unanimously in favour.

Seems innocent enough?

When Will produced a hand-made die featuring the numbers 1, 3, 6, 7, 9, 20.6, and 11,111, chaos ensued.

Was there ever any doubt? The 11,111 points were distributed among the scammers who helped ensure that the trick worked by paying to "peek" at the votes of Floyd and Russell to ensure the vote was unanimous.

Brent and Will seemed to be doing remarkably well. Until...

*Scam The Third*

In the most recent week of Gnostic, three sessions were held, as the scammers Floyd and Russell, to retaliate for the devious trickery that had duped them of their great lead, manipulated the rules of Quorum, Objects, and Teams.

To ensure that the game can continue whatever the schedules of the 15 or so players of the game, Quorum - the number of players required to play - can be quite small. Players who fail to attend several sessions become "inactive", and no longer count in the group of players of which more than half must attend. To make sure this doesn't become completely ridiculous, there must be at least 3 players... or, for puzzling reasons, 2 players, as long as a duck is within 10 feet of the Rule Keeper (namely yours truly).

Why a duck? Don't ask me.

In the past two sessions, the number of players present went from 5 to 3. When Tim left halfway through session 16, long before the normal time when the session would end, Floyd and Russell sought out a duck and began a new session. Then they got wise to the habits of ducks, and brought food to keep the duck around as they began yet another session.

Now Floyd and Russell recently discovered that they were on the same Team - no small feat, since Teams must be kept secret for fear of being Exposed. The members of this team were able to win if their score has larger imaginary part than real part (yes - you read that right). But to exploit this, a few rules had to be changed. Such as changing the benefits of being on a winning team from a prize of 100 points to a prize of 18396 points...

The rest, as they say, is history. Although there are currently Welfare Checks in the amount of 3000 waiting for each player who failed to benefit from the forged-die scam, and two new alien artifacts (including my shiny new Vorpal Light-Sabre, which any Jedi may use to coerce a Jabberwock) are being eagerly sought by the U.S.A.F. for internment at the (relatively new) Area 51, that, as they used to say on Hammy Hamster, is another story...

*How Can I Get In On This Crazy Game?*

If you'd like to join gnostic, or are interested in learning more, you can e-mail [jcmorton@uwaterloo.ca](mailto:jcmorton@uwaterloo.ca) for information on how to join, or check out <http://noether.math.uwaterloo.ca/~jcmorton/gnostic> for the complete ruleset, and a summary of the proceedings.

Floyd Gecko

## Life in the Slow Lane

*All Quiet on the South-Southeastern Front...*

First and foremost, there is something that I must get off my chest, dear readers. In response to Mr. Luu's "Letter to the Editors," I will be the first one to admit that Mr. Luu is right. I did go a bit too far as far as the insults and the name-calling are concerned, and hence I now wish to apologize to anyone who may have been offended or otherwise disturbed by my harsh comments towards the Bloc Quebecois. I sill don't like them, or what they stand for, or what they're trying to do to this country, but I did cross the line of good taste in my backlash against them.

Outside of that, I really don't have much to say this week (a loud "GASP!!!" can now be heard throughout the Math building). Aside from my midterm tomorrow morning, I really don't have anything serious to complain about (and we all know there is no point in complaining about midterms at all), so this article will be even more of a mish-mash of useless stuff than normal.

First of all, congratulations to Roger Clemens and Pat Hentgen, who will have represented the Blue Jays at the annual All-Star Game in Cleveland on Tuesday, July 8. Also congratulations are in order for Pedro Martinez, the lone Montreal Expo representative (an extremely unfortunate situation, as there really should have been more). I actually enjoy watching baseball's mid-summer classic, as it is by far the most entertaining of the various sports' all-star games. The baseball players actually TRY to win this game, which is an aspect sorely lacking from the other all-star games. One problem I have with this year's game, though, is: Why did Randy Johnson get the start over "Rocket" Roger??? *WHY???*

Speaking of Clemens, if you want a media firestorm in the world of sports, watch the game between the Jays and the Boston Red Sox on Saturday. Clemens is slated to start that game against the team he was a key member of for 13 seasons, and

subsequently left due to problems with Red Sox GM Dan Duquette. This will be a game definitely worth watching.

So the Maple Leafs have a new general manager. [*Well, as of press time, they didn't.* — *LatrellEd.*] Whopee. Boy, look out, Red Wings — the Leafs are gonna take a REAL serious run at your Cup now!!! NOT!!! I'm sorry, but it should never have been Fletcher that was shown the door — rather, the entire Leaf personnel (plus the Leaf faithful — I'm sure they wouldn't have had any problems finding volunteers) should have pulled a major coup and overthrown Steve Stavro. Oh well, one can dream, can't he? Meanwhile, the second-longest championship drought (second only to the Chicago Blackhawks) will continue for the next several years, and I will continue to bleed blue and white (and be in extreme agony doing it) the whole time.

The CFL's attendance figures continue to be bleak. Last night, one of the biggest rivalries in Canadian football was played out one more time as the Toronto Argonauts took on the Hamilton Tiger-Cats at Ivor Wynne Stadium in Hamilton in front of an amazing total of... 14,000 (yes, 14,000) fans. What's even scarier is that the Alouettes, considered to be a key franchise in the CFL's future, have yet to break the 8,000 fan mark as of this writing. It may be early in the season, but this is ridiculous. If this NFL deal doesn't make a substantial difference almost immediately after it is put into effect, the CFL will be dead by the beginning of the next millennium.

As far as the Tyson-Holyfield debacle goes, all I'm going to say is: And you wonder why I prefer professional wrestling.

So, as the sun sets on yet another unproductive day in the life of this mathNEWS writer, I only have this to say in closing: AAAAAUUUGGGGHHHHHH!!! Stupid midterm! Curse you all, midterms!!! Curse you to... Okay, I'm fine now (I think)...

Chris "The ever-studious one" McGuire

## The Mystery of the Wandering Duck

Just to allay any fears you may have, I feel compelled to let you know right from the start that this article has absolutely nothing to do with another article I wrote, *The Purple Geese Wearing Fluorescent Green Leg Warmers*, which appeared in mathNEWS earlier this term. This is in fact... **a true story!** (albeit embellished for dramatic purposes — actually, after reading over the final copy, I realized that the truth was dramatic enough.)

It was a beautiful Monday night just a few weeks ago and I went out to dinner at East Side Mario's with my friend Shane. I must admit that East Side Mario's is one of my favourite restaurants, in large part due to the free soup/salad and bread you get with your meal. Although many enjoy many helpings of salad and bread, I think that I'm one of the few persons who have ever asked for a *second* bowl of soup before my meal. Mmmm... hearty Italian vegetable soup...

Now, back to the story... so I was sitting there with Shane at the bar, waiting for our table and eating peanuts. That's another thing I really like about East Side Mario's — the free peanuts. I love to eat buckets and buckets of them (and often do!). Best of all is that you can just throw the shells on the floor (via another person, of course).

That reminds me of the restaurant we stopped off at on our way back from camping and canoeing in Algonquin Park on the Canada Day weekend. By the way, we had a **great** time — saw lots of animals (a moose, some snapping turtles, a beaver, some fish, toads of various sizes, and some garter snakes, which we played with... **NOTE: Snakes should only be played with by trained experts or fools — these sets are not mutually exclusive**), had some great food (bacon and eggs, soup, spaghetti, banock, and... scrambled pancakes...), and experienced the awesomeness of nature (glassy smooth lakes, cascading waterfalls, great forests, and rocky cliffs). So at the restaurant (where we had a nice surprise anniversary party for a couple of those along), we put our peanut shells back in the bucket, and our waitress picked up the bucket and without any pretense dumped the shells on the floors. Now *that's* atmosphere!

Back to Shane and I sitting in East Side Mario's... we're just sitting there, eating our peanuts, when suddenly there's a duck walking around the room! This is true! Anyway, a waitress comes over and shoos the duck out the open patio door.

Duck, anyone? I hear it's fresh...

Warren "The Milkman" Hagey

## The Minutes of the Last Magic-aholics Anonymous Meeting

P. A.: Okay, everyone, we have a new member today. Let us listen to him.

C. M.: (in a low, quiet tone) Hi. I'm Chris, and I'm a Magic-aholic.

All: Hi, Chris.

C. M.: It only started a few weeks ago. It was innocent enough; just a simple lesson in a little restaurant. But, now it's grown. Now, Archane Denials and Force of Wills dance in my mind. I can't sleep without trying to summon Rogue Elephants or White Knights to destroy my enemies. And, every second of every day, I have to always count... (sob)... count my mana!!! (breaks down in tears)

D. M.: It's okay, Chris. We've all gone through the initial rush of excitement. You'll get through this.

C. M.: Yes, but... but it's worse than that. I am now subject to the worse temptation ever known to man!!!

T. A.: Oh, no, not...?!

C. M.: Yes... I want to now buy my own decks!!!! (breaks down into hysterical crying fits)

All: GASP!!!

P. A.: (quickly taking charge of the situation) Now Chris, listen to me. You can BEAT this!! You MUST beat this!! After all, (prompts group to join her)

All: You're good enough, you're smart enough, and doggone it, people LIKE you!!!

C. M.: Oh, thank you, everybody!! Now I know I can make it after all!! I can fight this terrible disease!! (trembling with joy and relief) Thank you!!!

Chris McG... uh, I mean MacPherson... yeah, that's it

### gridCOMMENTS

Imagine my joy when I was told during the afternoon two Fridays ago that some people I know were done or almost finished the grid. Geez... I thought I had made it a little more challenging than the last one. Well, hopefully this time I will have you stumped.

First off, the results from the previous grid. There were 13(!) entries this time. Only one, by Riley Metzger, was incorrect. Here is the list of all the people who handed in correct answers: Willow, Chris Wooff, Ian "The Word Guy" Facey, Chung Chen et al., Pokey, Colin McMillan, Ian & Heather, Wendy Oakden, Candice "Candy Girl" Parado, Jean-Guy!, Mike, Mike of the H.O.L.E. and Royal Recreational Lemming Society of Canada. And the winner, using the complex selection formula, is the Royal Recreational Lemming Society of Canada. Stop by Math-Soc to pick up your prize.

Wow... 4 answers to the gridQUESTION. The Royal Recreational Lemming Society of Canada said, "When humans assumed the role of dominant species on this planet, I'd have a band of lemmings take their place." Ian "The Word Guy" Facey said he'd go back and give himself the winning lottery numbers. Candy Girl said she would put a halt to the production of acid wash jeans. Then there was Willow who said Chris Buchanan's conception...

Well anyways, the gridQUESTION for this issue is: What would the world be like without gravity?

Submissions can be made to the usual places: email to bcfox@undergrad.math, stuffed in the BLACK BOX, or submitted in person to the mathNEWS mailbox or office by 6:30pm on Monday, July 21<sup>st</sup>.

And next issue, we'll have the draw for the end of term Grid-Word participation prize. Good luck!

Latrell "GridBoy" Fox

### profQUOTES

"I wish I had a big stick."

Mendivil, MATH 136

"I got lucky. But I want to get lucky all the time."

Tuncel, C&O 350

"See what happens when someone asks a question, how excited I get?"

Mackay, STAT 231

"The question is, 'is  $\delta$  in this interval?' The answer is, 'I don't know!' It's the only answer that gets full marks. Now, would you actually write it down?"

Mackay, STAT 231

"You must know me enough by now to know that nothing is normal."

Mackay, STAT 231

"This is a good trick, but I think I'm the only one that is excited."

Tuncel, C&O 350

"Okay, is this boring? [Class nods] Good!"

Tuncel, C&O 350

"Okay now, let's say your date has B.O. or picks his nose..."

Lanctot, CS 466

"I was the funkiest white kid in our neighbourhood."

Kunze, MATH 138

## preclueCOMMENTS

*People Are Not Quite Clear on the Concept*

We received a number of submissions for Preclue #12, which was released in the previous issue of *mathNEWS*. That's *not* quite how The Game works. Each preclue is meant to lead you to the name of an item (or items) that you, as a participant, may find useful to bring with you. There are no prizes for submitting a preclue attempt to *mathNEWS*... though it *is* nice to see some of you trying!

And for those who *did* try, or *meant* to try: do you want to participate? Now's the time to register your team (by e-mailing [djrigby@undergrad.math](mailto:djrigby@undergrad.math)), or register just yourself if you don't have a team together! (We'll try to put you on one. But be sure to mention whether or not you have a car, or access to one for the day.)

For that matter, are you interested in participating, but are afraid of what our twisted minds can come up with? Be one of the twisted minds yourself: we need volunteers! (Especially if you have a car!)

Incidentally, this will be the final preclue released in *mathNEWS*, as The Game begins the morning of Saturday, July 19<sup>th</sup>, and this is the final issue of *mathNEWS* before then. There *will* be more preclues released, though; be sure to check our web page (<http://www.undergrad.math.uwaterloo.ca/~djrigby>) regularly right up to Game day!

The preclue is now elsewhere in this issue: good luck with it!

Mike "Hammer" Hammond  
On behalf of What's Left of Earth

## Richard III at Stratford

*Go see it on July 17<sup>th</sup>*

*Mathies \$30, others \$32*

*Details available at the MathSoc office*

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

## Song of the Wounded Capon

let your tender wings  
beat a little longer about my face  
Ah! but only a dream  
a hallucination it would be  
of my long slow death

I could have chosen life  
but it would have conflicted  
with goals and plans  
and wild dreams of limitless bliss  
and cowardice

I took advice from a friend  
"Strive not for love," he said  
"It brings only hatred and bitterness"  
the hunter takes aim at the point of pain  
and so I told her no

not in so many words, of course  
because, in truth, she never asked  
and neither did I  
because, in truth, I was afraid  
of what the question might be  
the critical moment passes  
like all momentous junctures do  
only as a breath of wind  
a simple exchange of values

a yes which should have been no  
or the reverse — I forget which now  
the choice was clear  
but muddied in my mind

now it seems the mud has seeped  
from my eyes to my bones  
to my kidney stones  
she and I, together in hindsight  
united by regret  
now and for never

where will you find me?  
check the meat markets  
I'll be looking for a side dish  
something that goes well with chicken

Richard "QSECOFR" Bilson

## Ahem.

We've told you once, we've told you twice, and now we gonna tell you again...

If you're ever wandering the Web, drop in on *mathNEWS* at <http://www.undergrad.math.uwaterloo.ca/~mathnews>.

Send comments or opinions to [mathnews@undergrad.math](mailto:mathnews@undergrad.math), the BLACK BOX, or our mailbox in the MathSoc office.



## Picture It

*Kincardine, 1976*

Happy belated Canada Day, people!!! I hope you enjoyed a nice, relaxing, warm weekend, and I hope that no one slapped you silly for singing "Happy Birthday" off key! (Don't ask; it's a long story...)

Okay, enough with the idiocy; after all, we are mature adults, seriously preparing for our futures by studying hard to do well in university. (Hey, knock it off back there; I hear you snickering!!) Ooops, that reminds me, I've got a midterm tomorrow morning. D'oh...

Anyhow, on to business. Last issue's column generated 6 sets of solutions. Pokey & Taz were in there with 2 points; Greg "Hologrami" Taylor responded with 5 points; Ian "The Word Guy" Facey and Michael Brown tied at 8 points; Mike "Hammer" Hammond made an impressive showing with 15 points; and our grand winner for this week, with an amazing 22 (of a possible 25, remember) points, is... (drum roll, please)... Chris Wooff!! Congratulations, Chris! As usual, your prize can be picked up in the MathSoc office. Here were the solutions to last week's set:

1. Bad spell of weather
2. 3 degrees below zero
3. Tennis, anyone?
4. Cross-country run
5. *The French Connection* (Full Credit: *Get Shorty*; Part Credit: *E.T.*)

Bonus: That name rings a bell (Full Credit: Dead ringer; Part Credit: Backing a hunch)

And now, ladies and gentlemen, on to the next mind-twisting, brain-numbing, back-breaking... WHOA!!!! This is a puzzle column, not a midterm!!! What I meant to say was, extremely easy, wonderfully pleasant, dead simple set of problems. No bonus this time; hence, a total of 15 points are up for grabs. Good luck to all!!

1. roduct
2. hill  
the
3. dump  
dump  
goose feathers  
dump  
dump
4. greenvy
5. damn?

Your solutions can be submitted in the usual ways: by placing them in the BLACK BOX, or e-mailing them to me at [cjm McGuire@undergrad.math](mailto:cjm McGuire@undergrad.math). They will be due on Monday, July 21<sup>st</sup>, at 6:30 p.m. Now, excuse me while I break out into a rousing rendition of "This Land is Your Land..."

Chris "STILL thinks Clemens got gypped" McGuire

## I'll Have The Special

*If you can't hum any Rush tunes,  
then you're no good to us...*

After a brief silence, I have returned to moan and complain about whatever's on my mind. Don't all cheer at once...

- On the Canada Day weekend, I got to drive back and forth on the 407, Ontario's new multi-lane beastie. If you read the last issue, we had a "review" of the 407 (*The Road I Have Travelled On*, mathNEWS V74 I4). When it said it was paved with concrete, it wasn't kidding. Concrete everywhere, with a dash of asphalt sprinkled here and there. Bridges so white that they'll literally burn your retinas if you stare at them too long. And the grass, er, weed medians make it quite the sight. Yes, folks... the 407 is one ugly highway. In comparison, the 401 is a very classy highway. The nicely paved lanes, the grey bridges, the concrete medians. To use an analogy: If the 401 is a lady, the 407 is a whore. (Get it? Cuz you have to pay for the 407 and you pay for a... yeah, well...)
- This year was the first year I spent Canada Day in Waterloo. It was nice of the weather to co-operate with the monsoon. Every year since coming to Waterloo, I have spent Canada Day in Oshawa. It's always been nice weather, nice fireworks, etc. This year I stay in Waterloo, and I get rained on. Later in the day, I was told this was the first time in years that it's rained on Canada Day in Waterloo. Wonderful. I guess it was my fault then. Silly me.
- By the way, did anyone get to see the fireworks on Canada Day at Columbia Lake? I heard they weren't that spectacular.
- Fire Cito. Now. And teach Joe Carter to stop swinging for the outside pitch and hitting into double plays. Thank you.
- So I guess the next Hollywood big-budget blockbuster production will be based on that "little" accident the Mir space station had other week. To any Hollywood producers reading this, I am available to play the brave and handsome space station commander. But I want my own trailer. And somebody to get me coffee.

And in conclusion: Happy birthday to me. Till next time...

Brian "Calculus Cowboy" Fox

## Canada Day Wrapup

Well, Canada Day went by, and UW's Canada Day Celebration was a blast. I'd like to thank all of the volunteers who came and helped out despite the bad weather. I'd especially like to thank Mark Thornton and his mom, Ryan Jenkins, Robin Stewart, Kurtis McClellan, Robin Van Boeschoten, Sarah Kamal's mom, Amber Aird, Terry Williams, Philippina & Marty Dupre. I'm probably forgetting names here, but the point is that though our volunteers were few, the ones that did show up did a tremendous job. Thanks, guys!

Ana Badour

## The Game — Preclue #14

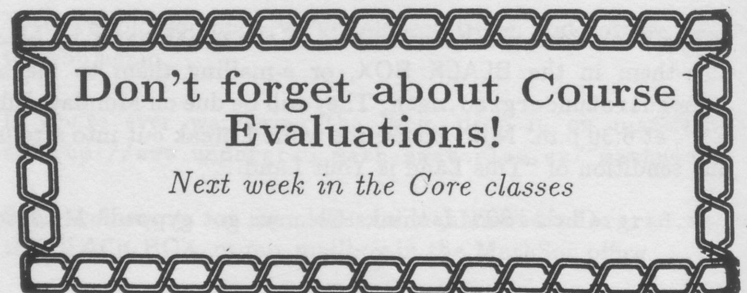
## The Generals

This puzzle will test your general knowledge. And your private knowledge, and your colonel knowledge... Each of the following listings is taken from the file on either a real person, a fictional character, or a phrase that sounds like an army rank and a last name. Fit the "last names" into the grid, word-search-style, so that all the names are in there and every blank square is used up. Once that's done, there will be some unused letters. Read them across, row by row, to spell out the name of yet another item to bring with you.

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

- (Ret.) Rich and frail. Cold-hearted. Served under A. Simpson. Knows odd words like "tontine." (5)
- Wild and crazy guy. Won't let anyone see him w/o invitation. (5)
- Takes recruits one at a time and teaches them things. Smart guy. Charges by the hour, though. (5)
- Does much the same as #3, but in groups. Charges more, too. (6)
- Ditzy blonde. Enlisted after tragic honeymoon. Claims to have relationship with K. Russell. (8)
- Snoopy. Always has his nose in things. MP's don't like him much for some reason. Photographs adulterers. (9)
- Works as clerk. Dresses in drag. Do *not* give Section 8 w/o my approval. (7)
- (Dishon. disch.) Was too quick with baton on recruits who caused trouble. (10)
- (Inj. & disch.) Goes on about some whale. Unstable after injury. (4)
- (Inj. & disch.) Same problem as #9, only with crocodile. Last seen on island. (4)
- (Dishon. disch.) Stole from ships. Very young to achieve this rank. Just a... child, really. (4)
- Has tendency to try to control others' lives. Once travelled approx. 60,000 miles while submerged. (4)
- Subordinates complained of poor leadership, abandoned him. Has bounty on his head. (5)
- Married Native American. Very animated. Sounds a little like M. Gibson. (5)
- Has travelled 7 seas. Exploits are legendary. Thinks himself a comedian. (6)
- Veteran of WWII. Prefers his blue uniform. Very fond of his shield. (7)
- Strong leader; however babbles about "enterprises of Starship Voyager." (7)
- Assigned to mess tent. Won't fight — he's completely chicken. (7)
- Sports nut. Follows all the baseball teams. Particularly Cleveland Indians. (6)
- Hard worker. Always working on big projects. Also has interest in laying dead to rest. (11)
- Implicated in massive investigation. Shredded documents, but got on TV for 6 days. (5)
- Involved in major skirmish. Subject and his confederates lost. (3)
- Involved in battle against #22. Dispute settled at courthouse. (5)
- Works in mess tent at breakfast. Won't serve Cap'n Crunch. Does Trix. (5)
- Surrenders quickly. Makes opponents relinquish too, though. Fighting stops. (5)
- (Deceased. Killed in battle.) Led 200 men to their deaths in Montana. Should have waited for Gen. Terry. (6)
- In charge of vehicle pool. Has nothing to do with jeeps. (6)
- Veteran of WWII. Advocated tank warfare. Called "Old Blood-and-Guts". Won Academy Award. (6)
- Was involved in plot to assassinate Hitler but did not know it. Called "The Desert Fox". Was not even nominated for Academy Award. (6)
- Medical staff. His life is a daily drama. (8)
- Veteran of WWII. Said he'd be back long before Arnie did. (9)
- Works with #30. Don't let him talk; he'll put you to sleep. (10)
- Served well in Iraq. Can always tell when it's stormin'. Hates it when someone spells his name with a 'T'. (11)

Mike "Hammer" Hammond  
On behalf of What's Left of Earth



## mathNEWSquiz #5

*Orgleblorfic! It's True, I Checked!**I'll Take Potpourri for \$1,000, Alex*

Hi, everyone! How is everybody this fine Friday morn? Alrighty, here are the answers from last issue's quiz: **Song Lyrics:** 1) The Rankin Family — "Blue-Eyed Suzie"; 2) Alanis Morissette — "Hand in My Pocket"; 3) The Tragically Hip — "At the Hundredth Meridian"; 4) Leonard Cohen — "Heart with No Companion"; 5) The Odds — "Horsehead Nebula"; The theme is "parts of the body"; **War and Peace:** 1) Juno Beach; 2) Canadian Airborne; 3) Lester B. Pearson; 4) Peace Tower, Parliament Hill, Ottawa; 5) Sir Isaac Brock; 6) Vincent Massey; **Canadian Math & Science:** 1) Dr. Ron Dunkley; 2) Marc Garneau; 3) John Charles Fields established the Fields medal because there is no Nobel prize for mathematics; 4) Dr. Frederick Banting and Dr. Charles Best; 5) Ravi Vakil received 119 / 120; **Movie Quotes:** 1) "Highway 61"; 2) "Dunston Checks In"; 3) "If You Could See What I Hear"; 4) "Iron Eagle II"; 5) "Roadkill".

Here are the people who submitted to last issue's quiz, with their scores in parentheses: Colin McMillan (3); Pokey (9); Willow (9); Chris Wooff (9); Chung Chan, et al. (10); Ian "The Word Guy" Facey (18); and the winner, with 23 points, is Royal Recreational Lemming Society of Canada! You can pick up your squizprize at the MathSoc office.

*Song Lyrics*

*One point each for song name and artist,  
and one extra point for general theme*

- "I like my bands in business suits.  
I watch them on T.V.  
I'm working out most every day  
And watching what I eat."
- "I've got an eye in the sky  
Taking pictures that I don't want to see.  
She's got a brand new guy.  
Looks like she's never coming back to me."
- "One thing I think you should know:  
I ain't gonna miss you when you go.  
Been down so long, I've been tossed around enough.  
Couldn't you just let me go down and do my stuff?"
- "He's burning the grass.  
He take up a glass.  
He swallow it neat.  
He crosses the floor.  
He open the door.  
He take a sniff of the street."
- "And then there was this guy who  
Made his wife so mad one night  
That she cut off his weiner.  
And when he finally came to,  
He found that Mr. Happy was missing."

*Mars*

- Why is Mars red?
- Name the two moons of Mars.
- Name the first U.S. space craft to reach Mars.
- Name the two halves of the current U.S. mission to Mars.
- What is the name of Mars' largest mountain?

- Who plays the title role in the television show, "Xena: Warrior Princess"?
- What does a phrenologist study?
- Who recorded "Poisoning Pigeons in the Park"?
- When was the Magna Carta originally signed?
- How many points wins a regulation volleyball game?

*Movie Quotes**Name the movie*

- "And another thing: your beer tastes like piss."  
"We know. We piss in it."
- "I know a great name for our team: The Ducks!"  
"What kind of a Mickey Mouse outfit would name their team The Ducks?"
- "There's nothing wrong with you that a little Prozac and a polo mallet can't cure."
- "It's like sleeping with your sister. Sure, she's a great piece of tail with a blouse full of goodies, but it's just not right."
- "Either he's alive or he's dead, or the cops got him ... or they don't."

Good luck everybody! You can submit either to the BLACK BOX across from the Comfy Lounge on the 3<sup>rd</sup> floor of MC, or you can email [scepollo@undergrad.math.uwaterloo.ca](mailto:scepollo@undergrad.math.uwaterloo.ca). **Submissions will not be accepted after 3:30 on Monday, July 21, 1997.** See y'all later!

Mike "Hammer" Hammond

Jerry "Fish" Han

Stuart "Jean-Guy!" Pollock

## Letter to the Editors

[*Editor's note: The following is satire. Please take it as such.*  
— *DaEds et Carmen.*]

Dear editors:

I wish to write about something that is of deepest concern to me, that I think you need to address in your paper. It is the subject of the appalling law that allows women to go topless.

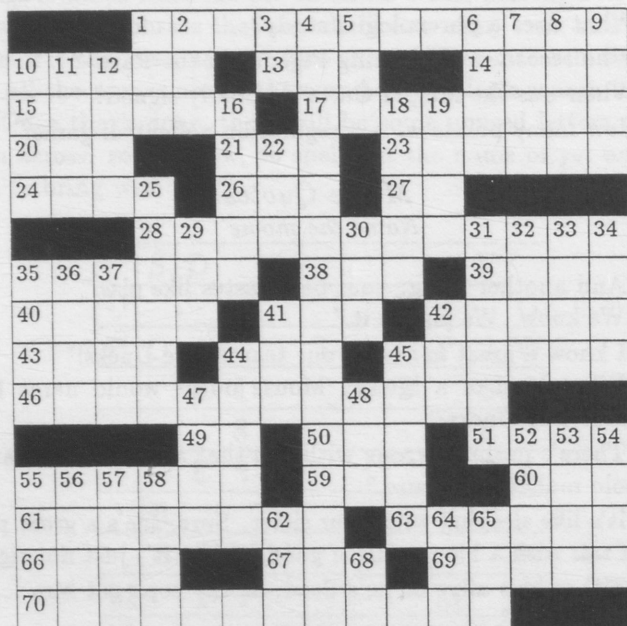
How will the morality of society be preserved when everywhere children are allowed to see bare breasts? Nudity is disgraceful, wrong, and unnatural. The quality of life for our children is seriously at risk. When constantly exposed to semi-nudity, how is a youngster going to tell the difference between right and wrong? How will teenagers keep from having sex at every opportunity? How can I tell my children that their body parts are private if they constantly see those parts on parade? How can we, as a society, maintain the image of our ideal body type if all body types are in plain view to be seen by any impressionable child? Think of our own personal discomfort if ugly people were to walk around without shirts!

Please, we must do everything in our power to keep everyone from exposing their disgraceful bodies.

President of the

Toplessness Isn't Tolerable Society

# GRIDWORD



## Grid Clues

### Across

- Rush album
- Former Jays' pitcher Dave
- To be in debt
- Middy
- Shave it and it isn't there
- Person who looks things over
- It's the loneliest number
- Hotel
- Lighter fluid
- Quiz
- Section of land
- Is she still the Princess of Wales?
- Rush album
- Rains (in a frozen way)
- Slick liquid
- Galway Bay island
- Picasso
- Finish
- Fully developed insect
- Ethnic group of Ghana
- Garden tool
- Jerry O'Connell does it every episode
- Rush song (from the late 80s)
- Shock jock monogram
- He played Wesley
- Unit of measurement
- Arizona city
- Snakelike fish
- You, your (in Berlin)

- Rush song (from the early 80s)
- Better than mono
- To assert
- Similar to Rd. or Blvd.
- Fable guy
- Rush song (from the mid 70s)

### Down

- Agent
- Sash
- Not hi
- Rush album
- Curse
- To leave out
- Ship of Columbus
- It's got a nice garden
- Title of respect
- Black powdery substance
- Sound
- Turner and Eisenhower
- Murders
- Singer Paula
- "The Ghost and Mrs. —" (Old TV show)
- Head movement
- Paul Rodgers' band
- Prefix meaning "ear"
- Suffix meaning "like"
- Bunch of people who know each other
- Person from the Bible
- Uncontrolled anger
- He's from Hazzard
- Resorts
- One hundred thousand rupees
- Spanish river
- A very long time
- Sick
- Egyptian leader Mubarak
- Disposes of for money
- Oriental ship
- Article of clothing
- Broadcasts
- Prefix meaning "current"
- Let go
- Frying pan maker
- Crab-eating mongoose
- Look for
- Wax
- Boy
- Black gooey substance
- Cartoon cat
- Short record (abbr.)