

They cut down trees for this???

# math NEWS

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## Oktoberfest Barrel Race

On Saturday October 6th, Mathies made history. The first time anyone can remember a math team entering, a math team won the Oktoberfest barrel race. Two math teams entered the event; MathSoc 1, a hand-picked team, and MathSoc 2, a team never fully defined until they actually showed up for the early morning race on King Street.

Consistently fast out of the blocks, Kevin Rea and Nelson Neal relayed the keg to anchors Stewart Fleming and Vic Ulickij; all members of...the MathSoc 2 team. In spite of their keen attention to details (such as replacing lost fluids), the other math team, Phil Beale, Tim Hill, Chris Jones and Ross Morrissey never managed to get in gear, and finished far out of the money. The only other UW entry was the 2B Electrical class who performed inconsistently and narrowly missed creating an all-Waterloo final, finishing 3rd.

A brief yet intense celebration followed in the presidential suite, and later the lounge, of the Kent Hotel. The first prize, \$100, is being donated to the United Way, along with a similar amount from MathSoc.

Check out the display case on the third floor for action shots.

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## Math and FED HALL

After years of effort, Fed Hall will officially open its doors on Wednesday November 14th. The gala opening will be an event for various dignitaries, with Toronto Harbour providing the entertainment for the officials. You may recognise Toronto Harbour as the band that's been road tested at the MGB.

The opening for students will be stretched over 3 nights, Thursday through Saturday, Nov. 15th to 17th. Although no names are being mentioned, there will be a first rate live band and nominal charge each night. Information and tickets as they come available from the Math Society or the Federation of students.

In a coup, the Math Society is proud to present the largest Grey Cup Party ever held on campus, Sunday November 18th. Again, details and tickets to follow.

The final Math Event of the term, on the last day of classes, November 30th, will be in Fed Hall: the greatest end of term bash ever held at Waterloo.

## Of Job Placement and the SAC

One hundred percent job placement! That's no future wish, that's reality for the students out on work term right now, as early as September.

Big deal, what about us, you say. Well, for us Mathies there are already more jobs than students for the January work term. The stats as of Oct. 2 show 764 math students requiring jobs and 820 jobs available. (And that's with only a handful of late postings included.) So your chances are pretty good!

These statistics were brought to you courtesy of the SAC. Now this is a term you've probably heard, but what the heck is it? The formal name is Student Advisory Council to the Department of Coordination and Placement. There are student representatives on the SAC from almost every faculty discussing student concerns about the co-op program. Recently there have been major discussions on Want Ad writeups, qualifications, coordinator visits and contracts. And of course it's always nice to be able to forward great stats.

Your Math representatives on the SAC are Brett Martin (2A), Nathalene Fong (2B) and Barb Palmer (2B). If you have any questions or concerns about co-op, don't hesitate to talk to them or leave a message in the MathSoc office. And if you know these people, you can now answer "yes" to the last question on that questionnaire you should have got at your return-to-campus interview. If you still have that form, please return it to the receptionist in Needles Hall.

Well, late postings are up and interviews start October 22nd. Best of luck to everyone, especially to you first-time hunters.

British Petroleum

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## More Frosh Pink Ties

Due to unforeseen demand, the supply of frosh pink ties was exhausted early on the second day of orientation. All those frosh who paid their money, and got a rain check or bandana (inclusive), can get their ties now. Bring your id, bandana and rain check to the Math Society office to get your tie. If you are missing one of the three items, you can still get your tie, but you must track down Mark Haygarth. His office hours will be posted.

## LookAhead

A glance at upcoming events

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|--|
| <b>Math Events</b>   |
| Oct. 25 Diamond Club Road Trip                                     |
| Oct. 25 Mathsoc General Meeting<br>MC 5058, 4:30 pm.               |
| Nov. 10 Mathsoc Wine & Cheese !                                    |
| Nov. 18 Grey Cup Party (Fed Hall!)                                 |
| <b>Fed Flicks</b>  |
| 8 pm. in AL116 Cost: \$1 feds, \$2 others                          |
| Oct 19-21 <i>Splash</i>  |
| Oct 26-28 <i>Testament</i>   |
| <b>Cinema Gratis</b>   |
| starts 9:30 pm. in the CC  |
| Oct. 24 <i>Arthur</i>  |
| Oct. 31 <i>The Birds, The Omen, Village of the Damned, Dracula</i> |
| <b>Computers in Education</b>                                      |
| <b>Brown-Bag Seminars</b>  |
| All lectures at 12:30 - 1:30 in CPH 3385                           |
| Oct. 22 Electronic Mail - Problems and Potentials                  |
| Oct. 29 Using Computers for Intelligent Systems Analysis           |
| <b>mathNEWS dates</b>  |
| Oct. 21 mathNEWS articles deadline                                 |
| Oct. 22 mathNEWS production night, MCS038.                         |
| Oct. 26 Next mathNEWS available                                    |
| <b>UW Arts Centre</b>  |
| Call Humanities Theatre Box Office at<br>885-4280 for more info    |
| Oct. 21 Chinese Magic Circus of Taiwan                             |
| Oct. 25 <i>Roberta</i>   |
| Oct. 26,27 <i>The Nylons</i>                                       |
| Oct. 30 <i>Mephisto</i> (film)                                     |
| <b>DCS Courses</b>   |
| Free! One to three one-hour lectures;<br>contact DCS to register.  |
| Oct 23, 25 <i>Introduction to VMS</i>                              |
| Oct 29, 30, 31 <i>Unix for Document Preparation</i>                |
| <b>For Co-ops Only</b>   |
| Oct. 22 Interviews Start!  |
| Nov. 8 Pick up job ranking forms.                                  |
| Nov. 9 Interviews end.   |
| Nov. 9 Ranking forms due.  |

## The Unwanted Ads

So all you frosh ... you thought you picked some really impressive jobs from the Want Ads eh? Well you will soon find out what joe jobs you really applied to. Here is something you should have known about the Want Ads ... but we forgot to tell you!!! Employers have a habit of "hamming" up their job descriptions ... here are some examples.

"... and processing crucial documents" really means photocopying.

"Innovative assembling of company records ..." is deciding which side paper is to be stapled and then arranging them in alphabetic order.

## Math Traditions

It is difficult to believe that the U of W has been around longer would be like without the **mega Wine & Cheese**. This hearty tradition, over half a dozen terms old is on it's way, Saturday November 10th in South Campus Hall. For all the frosh and other mathies who have never participated in this spectacle, bear the following in mind: imported wine, cheese that bites back, a tasteful mixture of imported, domestic and vintage sound.

Before you ask what happened to the biggest tradition of all, there will be a **Pink Day** Wednesday November 14th. Wear pink, think pink, and drink pink. Pink Day is a MMT production.

Another great Canadian Tradition is the **Grey Cup**. Celebrate or mourn starting at noon, Sunday November 18th in Fed Hall. The traditional **End-Of-Term Pub** will be held in Fed Hall, on the last day of classes. More details on these events will be forthcoming.

## Food on Campus

In a few weeks the end of term will be in sight. Also looming on the horizon will be the prospect of no money. Before this spectre raises its ugly head, we shall take some time off to prepare for its arrival.

You probably haven't noticed, but the University of Waterloo has a large amount of food lying around just waiting to be eaten. There is an abundance of ducks around Laurel Creek and the various residences. You can also find squirrels all over the campus. Squirrels, of course have the added attraction of making lovely coats. If you are quick you could bag some of the migrating geese on Columbia Lake. I admit that these resources are limited to the nice weather: the ducks have a bad habit of migrating and the squirrels hibernate.

If you don't mind a slightly longer walk, all is not lost. In Waterloo Park there is an abundance of food. There are goats, sheep, deer, and rabbits. All of these creatures are available the year round. These animals are all enclosed so they can't run away. This means that those of you who are too poor to afford a rifle can rig something up using rocks or sticks. I leave the actual hunt to your imagination.

anyway, happy hunting  
Captain Cockroach

ps. Keep count of the rabbits this winter.

"... with flexible hours" means shift work for sure.

"... and extensive user support" is really answering phones and telling users to hit <return>.

"Using the coordination and manipulation of the outer limb extremities in line with advanced hardware for updating numerous databases" is really data entry.

"Tasks will include the identification, gathering and reconciliation of information to be translated to the computerized databases" means finding ancient company records in dusty filing cabinets, putting the records in chronological order and finding out that the "data" is inconsistent and you must "reconcile" it.

## Are Regular Students Inferior?

### *An Opinion*

As you might (or might not) have heard, MathSoc has decided to hold a General Meeting on this coming Thursday. The purpose of this gathering is to approve two amendments to the MathSoc constitution.

One of these amendments seems (to me) to be harmless. It is to give honorary (non-voting) council membership to off-stream executive officers. Such a privilege is already being extended to off-stream class reps, and there should be no harm in letting three more people give their opinions at council meetings.

It is the other proposed amendment which concerns me. This amendment, if passed would be a severe setback to the democratic process in the Society. What it suggests is that the elections for all positions which will be open in a Spring term (May to August) should be held in the preceding November!

At first glance, there is nothing very odd about this. After all, the students who will be here in the summer are the co-ops who are on campus in the fall. Since everybody is here, why not vote early, so that a transfer of power can be achieved smoothly?

My first, and perhaps weakest, point against this side is that it presupposes that an election held six months earlier will yield the same results as a later one. The federal elections of 1979 and '80 will serve as counter-examples to this theory.

My second point is that we do **not** know, six months in advance, who will be on campus in the Spring term. The amendment suggests that the election should be open to all co-op students who are on campus in the fall. Students in their 4A term ought to be excluded, as should 8-stream students in 1A; although the amendment does not seem to mention these, I will not harp on this oversight (remember it when you vote though).

The amendment does not take into consideration the cases of regular students who remain during the summer term (some do, so that they can get out sooner, or to make up courses). Neither does it allow for students who fail out of the faculty, for those who are admitted first in the Winter or Spring terms, for those who pay their MathSoc fees in one term but not in another, or for those who switch streams (in either direction). It cannot consider these students, because their status does not become apparent until after November.

Nonetheless, we do, now, have at least one MathSoc council member who first joined the constituency (class and stream) which elected him one month before he was elected. In a similar situation under the proposed amendment, he could not have been elected.

The motion to amend the constitution does admit some of these shortcomings, but the authors take the attitude that giving most of the students the right to vote is adequate, and that a few voters here and there won't really affect the elections anyway.

I disagree. I feel that once we start depriving fee-paying students of a vote, we are denying one of the fundamental principles of democracy. I feel that if we continue with such policies, we will eventually achieve a MathSoc with apartheid policies for co-op and regular students resembling those of South Africa.

I have outlined my stand on this issue, and have, I hope, convinced you that I have a valid point. If you agree with me, or if you disagree, please attend the MathSoc meeting on Thursday, listen to both sides, and cast a vote. If you can't make it, give your proxy to a friend. Each member who attends may also carry one proxy. Proxy forms are available from MathSoc.

See you Thursday  
Cary Timar, Class Rep.

## In Reply to Dr. Bert

*from last issue*

My dear impertinent friend,

No, No, No! You cannot define **God** in terms of **self**. First of all, all perceptions of **happenings** are different although two **selfs** may perceive the same **happening**. The two **selfs** are the same if and only if their perceptions of the **happening** are identical. The act of perception is a **happening** and for any two **selfs** it must be different. There is only one "correct" perception of a **happening** but the **self** does not define it; all **selfs** define it collectively.

We define the **self** which has this "correct" perception as **God**.

I do agree, however, that this is a useless definition. But, who claims to know **God**?

Thank you, and goodbye  
Dr. Ernie

## Personals (Internationulls)

**Wanted:** Huge electromagnet.—Society for Attracting Sculptures

**Programmers:** Do you have a pitifully small account balance? Does your file space crash when you save code? Does your system hate your gates? Call HOSTBUSTERS at 555-1170.

**Joshua** wants someone to explain Canadian politics to him. 'A strange game', he says, 'the only way to win is not to play.'

### *Quote of the Day*

"Integration? Isn't that putting black kids and white kids together in the same school?"

The Unknown Student

Did you know that mathies can do without engineering, but engineers cannot do without math??

## Feedback

### *Religion, Lunch seating, Fed Hall Fees, and Cthulhu*

Dear Dr. Ernie:

Upon reading your article entitled "Religion in Life" I was immediately compelled to offer you this reply. Quite frankly, I agree with many of your observations; it is true that the Church, both past and present, has done terrible things in the name of Jesus Christ. It has become corrupt in the same way that our society has become corrupt.

Because of these changes, society's definition of "religion" is dramatically different from the meaning of the word 2000 years ago. As you correctly pointed out, society today believes that "religion is merely a set of guidelines on how to live your life." It is "a crutch" and "a way of enforcing behaviour."

In James 1:31, however, God gives us his own definition: "Religion that God our Father accepts as pure and faultless is this: to look after orphans and widows in their distress and to keep oneself from being polluted by the world." (NIV) Please do yourself a favour—know what it is you are rejecting before you do so. The true Church is one which obeys the greatest commandment, "to love." Don't throw out the baby with the bathwater!

with Christian love,

Brian Quigley  
(one who practices his "religion")

Dear Editor,

Due to the lack of eating facilities in the math building, the C+D should be used for eating lunch only, during lunch hour, **not** for doing home work.

Almost every time I wish to eat lunch in the C+D I can't because of the lack of empty chairs and tables. (This is because students doing homework occupy most of the seating in the C+D).

The Cafeteria in SCH has implemented a policy banning homework during lunch time (11:30–1:30). This makes more available space for those wishing to eat lunch.

If such a policy were implemented in the Math C+D then those wishing to eat lunch in the C+D would be able to do so.

Concerned 4th year Math Students

A letter to the editor:

Now I know that most of you students realize that you paid a Fed Hall fee, \$7.50 to be exact, but do you realize that you will pay this \$7.50 again until you graduate? Now I am not questioning the fact that the fee must be levied because we must pay off a loan made to us (via Feds) by the University. What I am questioning is the fact that we, the students of the Fall term, are paying this \$7.50 for a full term's use but are going to get 3-4 weeks use of the facility, while the people next term will pay the same \$7.50 and get to use Fed Hall for 3-4 months. So what am I saying? Good Question! This is unfair, the idea of refunding the \$7.50 is ridiculous, but what about a discount on our fees next time we pay them (Winter or Spring term)? How about it?

If you support this idea let the Feds or Imprint know.

An Irate Fed

Dear mathNEWS,

This is a complaint in reference to the September 28, 1984 issue of mathNEWS; in particular, the article entitled "A Prayer on the Selection of the Design of the ICR Building." While the article is humorous and I agree with its point (*there was a point?—zed.*), I was surprised by the mention of "Cthulhu." Cthulhu, I'm sure you know, is a mythical fictitious (perhaps real) demon/spirit referred to in H.P. Lovecraft's horror stories. There are other appearances of this "most evil" being of the supposed Underworld throughout gothic literature. While I do not necessarily believe in this being, I believe in what it vehemently represents: evil, hatred and death. I don't think these things should be attached to the administration (even if they are nasty) of the university. Perhaps this association should be retracted so as to not anger those of this world and others.

Just sitting at the Fence

*(What can I say? Actually, sleepy Cthulhu appears positively nice next to such luminaries as Nyarlathotep, Shub-Niggurath, Joachim Slip-Cover, and The Integral from Hell. Anyway, 'twas only a jest, Herr Fence.—zed.)*

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Editors: Cary Timar

### *A Day at the Beach*

"Land Shark" he cried, and everyone ran into the water.

Fin.

## Griddled Word

### For Lovers Only

Now that we've got your attention, here's the Gridword—this week's endeavor to amaze, astound, buffet and baffle your wits with weird words and curious crossclues. Re the Gridword in Issue #2, it was proved by Mathematical Induction (2B) on the dimension of the grid that the solution to that particular puzzle could not be expressed in closed form. So then we had an Open Forum on the Solution of Gridword #2, and still no solutions were forthcoming—not only that, we didn't get any either.

Oh well, life must go on. So, like, here's the next Gridword, with matching clues and grid even. Have fun!

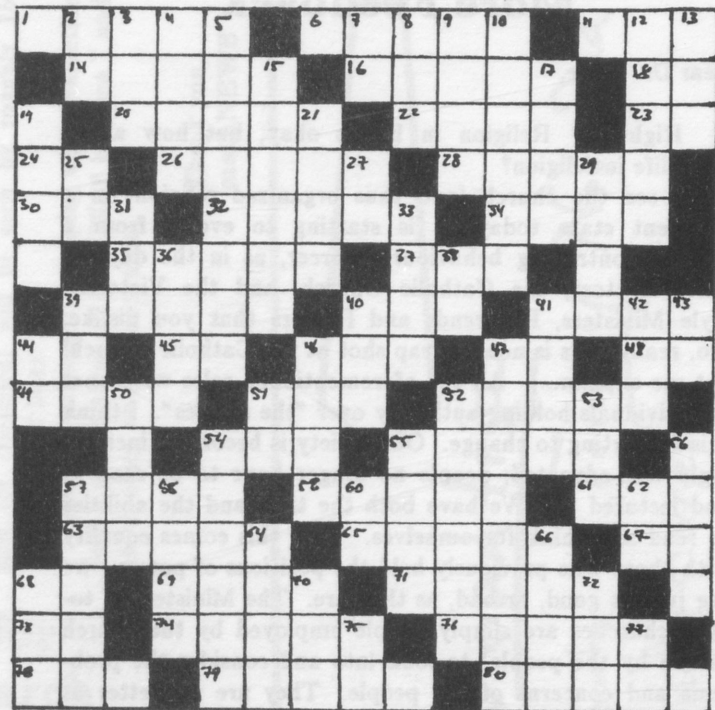
#### Sidewise

1. He, He, etc.
6. Marley (without Wailers)
11. opposite of rear
14. Will's jesters
16. rescued
18. Chinese game
20. choose
22. kind of kinetics
23. short route
24. gold
26. difficult brown
28. aunt's child
30. Mahal, sort of
32. friend of tea
34. shallowest Great Lake
35. mean strings
37. equivalence word
39. go to school
40. companion to sprite
41. they have it
44. Integrated Studies
45. kind of put
46. in hole
47. Waterloo Pascal
48. around 3.1
49. Python meat
51. 6-sided roller
52. feline whip has 9
54. little Rodney
55. Heller's 22.
57. backwards Farm
59. French village
61. important number
63. important clause
65. actor Morse
67. good Comix!
68. Fed Flix site
69. pipe
71. not above
73. cast metal
74. gravity path

76. bread predecessor
78. Hogtown exchange
79. goat, sort of
80. dentist, sort of

#### Tallwise

2. handy key
3. Raven poet
4. Losers Out, Losers Out!
5. negative part.
7. Applied Studies
8. Unix feline
9. beheaded witches
10. credo
12. concur
13. not
15. SW.39 object
17. woodland animal
21. golfless Protean
25. Sun god
27. Religious Studies
29. large settlement
31. two-faced month
33. enemy of all things
36. proper
38. unhandy key
39. weird perception
40. drinking companion
41. homeric form
42. short shortest
43. standard units
44. exists
46. Sues opera
47. Erb's founding
50. after length, before volume
51. first note
52. friend to feathered
53. equals RHS, hopefully
54. necessary key
55. sidewise crustacean
56. only one time
57. British things
58. not out from
60. short Abraham
62. handy card
64. Swedish group
66. \_\_\_\_ Show of Shows (4)
68. short afternoon
70. one little German
72. Warren G. Thomas is
75. kind of toluene
77. first President's place



## This Week's Theorem

Consider:

$$\begin{aligned}\int \left( \frac{dx}{x} + x d\frac{1}{x} \right) &= \int \left( \frac{dx}{x} - x(-1)(x^{-2})dx \right) \\ &= \int \left( \frac{dx}{x} - \frac{1}{x} dx \right) \\ &= \int 0 dx = 0\end{aligned}$$

But  $\int d(x \cdot x^{-1}) = \int (x^{-1} dx + x d(x^{-1})) = 0$  from above.

And  $\int d(x \cdot x^{-1}) = x \cdot x^{-1} = 1$  by the Fundamental Theorem of Calculus.

Therefore  $0 = 1$ .

Take any real number  $x$ :  $x = x \cdot 1 = x \cdot 0 = 0$

Therefore all real numbers are equal to 0, ie. they are all equal to each other.

This is a very useful result since this means that any answer which is put down is correct. Thus everyone will get 100%. But this is the same as 0% meaning that we will all fail anyway. Oh well, you can't win!

Igor and Steve

### New, Improved Masthead

You might not have seen last week's invisible issue, which we produced on Thanksgiving. This is because my co-editor, DAN sCH. resigned. This is also why I am now writing this masthead. What should have been an eight page issue has just dropped to six, what with our mistakes in Rick's and Jane's articles and DCS' refusal to leave the printer on all night. I do have to thank everybody who showed up (unlike some masthead writers). Everyone includes John (Wint Ads) June (typing, layout, pineapple, and the missing article) Rick (layout, hot pepper, and the other missing article), DAN, Barb (pizza, "juggling", moral support), Ruchi

## More Feedback

Dear Dr. Ernie,

Right-on! Religion in life is okay, but how about some life in religion?

I see the church (and thus organized religion) in a transient state today, it is starting to evolve from a guiding/controlling behaviour enforcer, as in the days of witch doctors, the Catholic Church, and the Victorian style Ministers, Reverends and Pastors that you dislike. (no, really, this is not a cheap shot at the Catholic Church! Let me explain...). All the aforementioned roles were ones of individuals holding authority over "the masses". I think this is starting to change. Our society is becoming increasingly well-educated; people no longer have to be read at and lectured at. We have both the time and the abilities to read and think for ourselves. With this comes equality with those who previously held the positions of power - we are just as good, or bad, as they are. The Ministers of today's churches are simply people employed by the church (hence by the people) to look into and consider the problems and concerns of the people. They are no better at doing this than anyone else might be with equivalent training and time; they are specialists in what is becoming an increasingly specialized world.

Dr. Ernie, you say you believe in God, but so what? You might as well not believe in anything if your beliefs don't affect your daily life. This is what the church should be for - a forum for discussion and consideration of the overriding principles of our reality. A place where people can meet and share their beliefs, and maybe to take a break from the routine of the rest of the week. You don't have to join a hockey team or become a boy scout, but if you want to have any chance of expanding your beliefs or even understanding them why not discuss them, talk about them ("no man is an island") and what better place than a church? Want to talk hockey - join a hockey team, want to talk life - join a church. Maybe not the church of today, but hopefully the church of tomorrow. The only problem is that the church will never change without new people and new ideas.

If everyone was to quit church and join a hockey team would we lose anything? (Certainly not the Canada Cup.) I think we would. We'd lose appreciation of our beliefs in everyday life, we'd lose the "moral" base of our laws and slip into a world of isolated thoughts; and just maybe, sooner or later, someone would come along and tell us what to think. (Judging from past records, I wonder who?—Dr. Ernie)

Dr. Bert  
(definitely a theorist)

Masthead. Part II.

(typing, UnWanted's hot pepper, and layout), and special thanks are due to Ernie, who typed, edited, got articles (I thought that was impossible) did much layout (which we re-arranged) and hated pineapple pizza. Our contributors also deserve great thanks. These were British Petroleum, Math Soc, Ina, Centre of Gravity, Captain Cockroach, Irate Fed, Sitting at the Fence, Brian Quigley, Steve, Igor, Kevin, Cary, and Dr. Ernie, Dr. Bert,

## Dr. Ernie Replies

First of all I would like to apologize to Dr. Bert for having to edit his letter. Unfortunately it was too long to fit in its entirety.

Well Dr. Bert, I know that my belief in God is meaningless. The question that I ask myself is whether I want this belief to have meaning.

I agree with you on the church reforms that you suggested. I still believe, however, that the church should become more important to the community on a secular rather than a religious basis.

Finally, I suggested joining an amateur hockey team to meet people. This would provide a circle of acquaintances, and hopefully a circle of friends. You can talk to friends about anything, and find support, especially for the problems they are encountering in life.

Thank you, and goodbye

Dr. Ernie

## Weighty Stuff

Hi! I like Pure Math! (Oh no! you exclaim. He's beyond mortal help!)

Notwithstanding that, my first few lectures have proven interesting.

By "prove", I mean that our calculus text proves  $0 < 1$ , and other nifty things like that. It goes to incredible lengths to illustrate the seven (or eight (or is it  $\aleph_0$ ?) basic axioms and properties of the real numbers, and shows that all other properties can be derived from these few. However [sic], that I have found an oversight in the MATH 140A text covering this. Namely, there is one more property of the real numbers that I hereby challenge anyone to prove from the ones listed in the text: that real numbers don't eat quiche.

Centre of Gravity

*Centre, obviously being a mere frosh, must be unaware of some scientifically demonstrated facts about real numbers. We, the editorial staff, having reached higher years, are aware of why "Real Numbers Don't Eat Quiche" cannot be proven from the other properties of real numbers. Very simply, for the benefit of our frosh readers, it is because this statement is false. Although real numbers are commonly thought to not eat quiche, they can frequently be found around MC in the wee hours, furtively nibbling at quiche, sushi, or pastries. For the sake of their image, they do not do such things in the daytime, or when they are aware of people watching.*

and all the other faculty from the Department of Philosophy and Theology at Sesame University. With this many contributors, how come we only have six pages? But thanks to all of the above, to any I've missed, and also to Tom Ivey, who, as Assistant Editor, has taken over DAN's work, but is also providing gridwords and (maybe) other contributions. Why don't you write an article this weekend and get your name here? — Alfred