## *>miracless* a student's best friend

I wish to speak today on a subject dear to the hearts and red pens of those fearless (and sleepless) men and women who mark our assigrments. For those students lucky enough to get a marking job at Waterloo, the scene I will now describe is a familiar one. For the rest of you, it may also be familiar frm the opposite point of view.

Joe Marker opens Jack Student's paper and begins to mark. Check, check, check, pause, sigh... check, check,... huh? Hm... x equals $12, \ldots$ therefore x equals 5. Red circle gouged in paper. Notation: "this isn't logical!".

Perhaps this is an overwrought example. But it exemplifies a condition which is spreading quickly in undergraduate mathematics assigrments: the *>miracle<*. If a concise definition is necessary, this might be it: A *>miracle<* IS: 1. illogical
2. unexpected
3. at its best, imperceptible The purpose of the *>miracle<* is to restore verity to a thoroughly bollixed solut tion. As such, it is to be distinguished from the much less impressive * mistake * which takes a consistent argument and destroys it, or (even worse, I fear) worsens previous * mistakes *. A *>miracle<* is deliberate and calculated to catch the one marker in three who after 40 -odd papers has enough alcohol in his system or clouds in his head to consider only the bottom line of a solution. And it must work sonetimes, or it wouldn't be done!

The other two markers of the three feel at first surprise, then shock, then pity, then revulsion and lastly disgust (and maybe the odd thought of murder) at the suggestion by Jack that Joe oould he that bad a marker. I know that I've often wondered how these fine, upstanding young men and wamen, mostly ontario scholars and a substantial portion os them spoiled brats, could be so devious. But I (and the rest of the marking profession) must salute the ingenuity and derring-do of these mendacious miracle workers.

It is particularly amusing to find that some * miracles * are based in common sense. For instance, here is one pulled by a friend of mine in Grade 12 (at a time when he didn't know sf (a) about calculus): Given the differential equation $d y / d x=5$, he blithely cancelled out the d's and multiplied both sides by $x$ to get $y=5 x$, which is effectively the right answer. (Exercise: can you find a more complicated example?) The one I like best (but which is not really a *>miracle<* since it doesn't give a right answer) is the one where there's a pentagon $P Q R S T$ and a point O inside it. When asked to work out the product of the lengths of the line segments $O P, O Q, O R, O S, O T$, this anonymous Einstein wrote the equation $O P$ $\mathrm{x} O Q \times$ OR x OS x OT $=00000 \mathrm{PQRST}=0 * * 5$ $x$ PQRST. With a little work you can imagine him working in the area of PQRST into his calculation!

So, to all you Jack Students out there, just bear in mind that Joe's not necessarily a dupe. He can't really punish you for doing this (the alternative to a *>miracles* is an unfinished answer anyways) but you will remember it in your oonscience until you die (or became a marker yourself).

## Young Frank Einstein on sabbatical

Raiders of the Lost

# math NEWS 

Friday 11 February 1983

## A Meeting of Minds

Wherein the greatest mathematical genii of our age spew forth great thoughts about nothing very important...

In setting up the mathNEWS Think Tank we had several considerations: first, who would we choose to be part of the group; second, where the hell would we get a used tank. Not surprisingly we tackled the second problem first. It's not easy driving a tank, though, and we'd appreciate hearing from any $K-W$ Nazi holdouts interested in becoming our driver.

As for the participants, we started at the most obvious place. Finding noone in C+D that met our standards, we decided to send out membership offers by mail. We sent them to the head of the American Mathematical Association, to the Eotvos Institute in Hungary, to the Mathematics Departments at Case Western Reserve and U.C. Santa Barbara, and printed them on the backs of all Mother's pizza boxes used in Ontario.

No sooner did we buy the tank than did a myriad of applications pour in. Yes, said the head of the A.M.A., it sounds like the opportunity of a lifetime. Yes, said the Dean of Mathematics at M.I.T., we've needed samething like this for a long time. And so the first meeting was arranged.

After we removed the tank from the tangled wreckage of the Bauer Warehouse, representatives of the various luminaries came forth. "Gentlemen," said lackey \#l, "I give you the president of the American Mathematical Association, Dr. David Ash." David Ash, we thought. What an odd coincidence of names. Amused, we watched the next one make his announcement. "Presenting the Dean of Mathematics from U.C. Santa Barbara, Dr. David Ash," said lackey \#2. And on it went. Our worst suspicions became reality as, one after one, umpteen carrot-topped genii crowded around the tank. "At least we will have unanimity here..." sighed the organizers, as the discussion turned from sundry mathematical issues to space Invaders and the future of Thunder Bay, then to a debate on how to avoid freckles while tanning.

At the moment the mathNEWS Think Tank is meeting at irregular times in a house in Sunnydale, amid complaints from neighbours of an intense reddish glow emanating from inside the tank. We hope that soon we will begin to see some return on our initial investment - or at least get the bloody tank back.

## Ross Brown

Think Tank liaison officer

## Campus Spelunking

Down in the deep, dark recesses of the Campus lies untold secret passages in which mysterious students traverse. These secret passages have been built, blocked and used. However, mathNews reveals the hidden truth about UW's tunnels!!
Math - C2

This tumnel may be accessed by a door near MCl083 which will take you to the $C 2$ building and from there, to other Science buildings such as ESC, B1 and B2 via indoor connections and above-ground walkways. No need to brave a blizzard to get from Calculus to Chem!!

## SCH - Arts Network

First, the South Campus Hall to Arts Lecture link: From South Campus Hall, you may enter this tunnel by a door to the west of the Open Door Gift shop area. This echo-prone, orange passage provides a direct link to AL's basement.

From there, you may proceed by another tunnel to Envirormental Studies, Modern Languages, or to Hagey Hall. The tunnel entrance at the Modern Lanquages is right in the basement cafeteria, so watch out for diners.

Incidentally, the basement of Arts Lecture contains the former national office of the Warriors Band.

A hard-hitting special report...
MATHIE ZOMBIES


#### Abstract

"The time has come", the walrus saic, "to speak to you of the walking dead". Sorry WATSFIC fans, I'm not discussing literal zombies, (which are defined as actual dead people brought back to life) but rather , about those still alive despite their best efforts. These sad people are victims of the morning after the night before, and, in extreme cases, the morning after the morning after the night before.


Spotting this all too common species of mathie is rather difficult since they are rarely seen outside their natural envirorment (i.e. bed). If you should be lucky enough to spot what you think might be a mathie zambie, you can make sure by looking for some tell-tale natural markings.

The first thing to notice are the eyes. If they are glazed and open look for an after image of a computer screen. The word "ERROR" should be prominent on the screen. If the eyes are closed, don't despair, it could be just another variety of mathie zombie.

The next thing to notice is the mouth. It should be hanging half open. The tongue may or may not be hanging out.

Moving on down the body, the shoulders should be bent and slouching. The arms should be limp and the feet should shuffle as though unsure as to whether they should actually keep moving or just stop and take a break. Often they make the wrong decision and the poor zombie mathie ends up standing in a corner for an indeterminate length of time.

An extremely common destination for the zombie mathie is the $C \& D$ shop on the third floor. This shop sells a magical healing elixir for zombie mathies: COFFEE!!! (chock full of restorative caffeine). All too often, however, the zombie mathie cannot form the thought; "coffee"; and so it just wanders to its classes out of habit.

In a class, a zombie mathie is most easily spotted by its randomly arranged hairs and by the way its eyes are always a few seconds behind in following the prof's movements. After a time of this delayed reaction activity, the zambie's head will be slowly pulled down towards the desk and unconsciousness will claim it. Same zombies exhibit phenomenal willpower and may last through several classes or even days before they are eventually overcome. But all are overcome eventually and sleep claims them and sends them to face Mor pheus's wrath.

The cause of this condition can be said to be one of two things. Pleasure or Pain. (No $S \& M$ please!) If pleasure is the reason, you can bet that this mathie has seen a lot of glass to mouth action with the possibility of dancing complications. Sadly, the more common cause is pain. This pain, while taking myriad forms, fits into one category: schoolwork. The dreaded "all-nighter". The beast that robs us of sleep and drives brain cells to suicide, while making others scream out for euthanasia. (Death is usually granted to these brain cells via a painless dose of aloohol).

Take heed my children and be warned. You, too, can be made into a mathie zombie. In fact, about $95 \%$ of you have been or soon will be turned into mathie zombies. (The other $5 \%$ are in Pure Math and appear as mathie zombies normally). Be careful, there is no human force that can preevent this ravaging condition. No one is safe! Relapses are as common as first attacks.

If you should feel an attack ooming, remember the $C \& D$. Only with the $C \& D$ can you combat mathie zombyism.

> You have been warned...

Grounded Liqhtning



- APPERCEPTION:

REMIINERATION:

REPERCUSSION:


Al Why and how to go to Ottawa $(1,1,3)$
A7 AIA stand on everything (7)
B1 A likely story (5)
B7 Someone unique (7)
C1 Agile, black gibbon (7)
C9 Mutual of (5)
D1 Backward language (2)
D5 Did it to a math 240 kitchen (5)
D11 A real louse (3)
E2 Cousin of Einstein (8)
E11 Some mathies in it (abbr) $(1,1)$
F3 Home economics ( 1,1 )
F6 A lonely number (3)
F10 The Swedish Connection (4)
G1 Sign of a typo (2)
G4 Mixed-up dog (7)
H1 Sound alike (5)
H12 Yes, there is a Santa Claus (abbr) (2)

I1 Little carpet $(4,3)$
I10 Way to get up in the world (4)
J1 Short for a Leaf coach (3)
J5 Cut a little (7)
K1 $\leqslant$ (2)
K4 Certainly doesn't change much in a group (10)
L3 Not a stacked deque (5)
L9 - 86 (5)
M1 Rich Scot landowners (6)
My Normally Not Now ( $1,1,1$ )
M12 IBM file (abbr) $(1,1)$


1A Johnny = Money (4)
1F Going my way (8)
2A One who bends (5)
2G -cornered hat (5)
3A EQUIVALENCE (CHEVRON ) $(1,1,1)$
3E 1D ees (2)
3 H Got an urge for Japanese money (3
3L A backward test ( 1,1 )
4A Monopoly anyone? (3)
4E Prove a theorem with it (5)
4K On a French knight (3)
5A California lariat (5)
5G Former reluctance (7)
6C Formerly inert (5)
61 two two-toed sloths (5)
7A Fishing to a degree (7)
71 jeer (4)
8A What to say to an assembles program (2)
8D What no one is here for (4)
8J Motherhood and apple __ (Greek)
(2)

9A Positively no vibration ( 1.4 or 5 )
9G Variation of easy (U.S.) (2)
9J Papillon had it in arrears (4)
10A Doctrine (3)
10F JCL out of control $(1,1)$
101 Don't need an umbrella for this type (5)

11A Slight difference (6)
111 You axed for it (4)
12A Some rock formations are full of it (6)

12H Unreal storage ( 1,1 )
12K Finish a program (3)
13A Not this! (4)

\footnotetext{
$\begin{array}{llllllllll}1 & 2 & 3 & 4 & 5 & 78 & 9 & 1011 & 1213\end{array}$



## Office Spews

This is my last column this term as acting president of your society, and as such, I would like to thank all you devout mathies who have supported all our events. Our new president is Laura Redican! I will still be writing this column as the office manager, though, intent on keeping you informed. Also, thanks to everyone for making "The Library" a great success - let's do it again! Even those other pseudosocieties were able to control themselves for once!
Last Monday, (the 7th), Mathsoc donated $\$ 100$ to the Red Cross for expenses incurred in running their blood donor clinics on campus. They will be here for another bloodletting on Monday, March 7 in the third floor lounge. Their goal is 300 pints, and the engineers say that they can do that much alone. Let's see if we can beat them!

This Tuesday will be Math Night at the basketball game against Mac. Be sure to wear your Official Pink Tie available for only $\$ 5.00$ !
There will be a pub with the Psych Society (you remember the valley girl in FASS?) $\quad \infty$-sponsored with us on Friday, the 18th of March in the South Campus Hall. Admission will be cheap, and booze will be plenty...
On a final note... We've got it!!! . The CFNY Personality Roadshow be here sponsored by MathSOc and featuring James Scott along with a superb laser light and video show. This event is on Saturday, March 5 and tickets are very limited. They are only $\$ 3.00$ and are available in the MathSoc office, MC3038, in advance. Tickets will be $\$ 5.00$ at the door. There will be many prizes qiven away, and by the way, the event is licenced, so you will need age ID at the door.

## All Mathies!!

On Tuesday Feb. 15, the last home game of the basketball season will be played between McMaster and our own Warriors. It is Mathie night so come on out game. The Warriors ares at the a great OUAA West with 7 and 2 record.

We are looking forward to seeing all of you there!

## Important

Still needed: 5 people to compete in the half time basket shoutout! You'll have a chance to win tote bags, mugs or baseball caps. You'e guaranteed a prize if you enter. sign up in Mathsoc now.

## More Real Mathies!!

Due to Scooter! Error, we will have a shorter column than usual this week. Here we go with a few more selected responses from the hordes that we have received thus far:

* Real (R) Mathies:
* do use mechanical pencils, so long as their co-op jobs supply them with leads * know what GEB stands for and have read it
* Live loys and probper (attributed to Spock - a real mathie)
* can handle partial differential equations 3 lines long with no trouble
* can form a nilpotent matrix at a whim ???

And there you have it, all you Real Mathies out there! Keep those submissions coming, and watch this space!〔Scooter! thanks Housing Adninistration for a sudden 'move by two hours before you he this from us' order to have thanks Mark Kahnt for keeping he also all hours of the previous night in discussing stupid ideas for ECLECTIA (hint: Mark. ECLECTIA is ECLECTIA, don't try to change it). \}

## What this is, why we are doing it, and why you should care

This article has three beginnings and you want.
indirect beginning: Last December, at the post-putnam dinner in the Tien Hoa Inn, spirits were high, though relatively inexpensive since the Math faculty was footing the bill, and the brisk ayter contest cameraderie'had dissolved into individual warm, fuzzy afterglows, as the Oriental ex-cuisine burbled about our stomachs in mild Cultural Revolutions conservation was as muted as the lighting, and in the middle of the second table, between the frosh and the professors, the topic turned a single nasty effects of devoting to a single cause, "like the Federation or the Chevron. "Look," said one "there's enough to do around here without getting tied up in one viewpoint, in one set of people, and missing everything else lying right under our noses. "What we need is a Thin-Spreading Club.

## "What do you have to do to become member?"

"Well, everyone's a member, you see, to a certain extent. Passive members are those people who sit on their asses and do nothing; active members try different things, go to meetings they' ve never attended before, just for the sheer hell of it.
"But the point is, they don't commit themselves fully to just one thing."
"Wouldn't that be committing oneself fully to the Thin-Spreading Club?"
"Oh, don't quibble " with words. You've had too much wine."
rational beginning: A rather soppy February, a past editor and a present editor of a publication called mathNEWS were discussing the trials and tribulations of it all.
"It's been said repeatedly that the main purpose of mathNEWS is to provide light entertainment on a Friday afternoon. Well, I, for one, don't believe that anymore."
"Neither do I. It's obvious that we aren't even accomplishing that much."
"Yet I know we've got people who can turn out something more than trivia. The problem is that we're all lazy; we try to get away with the minimum amount of work expected of us, which has been steadily declining since mathNEWS started five years ago."
"Well, if we want to upgrade the standard' of the paper, it's quite simple: we start rejecting lousy articles and obvious filler."
"Yeah and as a result our average issue will be a single sheet, one side. People have gotten too used to their own littie styles to change them. We have the gridword, we have the personal columns which talk about everything and say nothing, we have the masthead which says even less, and it's all very predictable and all utterly boring. What's needed is a complete design change."
"It's all very well to talk about improved journalism, but mathNEWS really can't function as a newspaper. We put the paper together on Tuesday night and it comes out Friday. Meanwhile, the Chevron and Imprint came out before us and can change or include articles after we deliver our paper to Graphic Services. Our lead time's just too long. So what's the answer?"
synthesized "heavy" beginning: Easter sunday, visting a campus almost desertéd, back from an isolation more psychosomatic than actual, he could somehow sense the heartbeat of the campus; not a loud pounding boisterousness, but a quiet throbbing certainty, a diffuse awarness of iife in about its borders. As he climbed the steps in front of South Campus Hall, he wondered just how many others never heft their intie boxes, sate in their few repeated actions, and'their dreary, repetitious rote lives. The wind blew through thhe funnel opening by the bookstore, rattling the loose stubs of paper on the cleaned-out billboards, and he thought: give them a tool, a can-opener, a rotorooter to till théir soil. All through high-school they've been gompartmentalized, strapped into their desks ilke those little plexiglass machines used to make, boiled eggs cubical, and now that they're here they see the few remaining petty restrictions as overwhelming, an excuse to keep their old mode of behavior fixed and unchanging. Show them what they can do, and if a hundred dismiss you as annoying, one may listen long enough to transcend the whole sordid mess.

As he came out on the path between Engineering 1 and the Grad club, the sun broke through a gap in the clouds and beamed down upon him, but it was such a ridiculously obvious symbol he refused to even think about it. rhetorical ending: Freedom is the byword - freedom through transcendence. We're young and that scares many people, so they try to control us by puliing us, the way they want us to go. A lot of us pull as hard as we can in the other direction, which is obstinate, piq-headed, and results in

## Foodback

## Dear mathNEWS

I (who else would I talk about (oh wow - I just mentioned me again ("ad infinitum"))) wonder (that is, I am dwelling on an uncertainty (what else does one do during lectures - I know: sleep, read, daydream, philosophize, doodle, etc.) (actually there are a lot of uncertainties during 50 minutes, as most lecture material is abstract and new to us)) how many (regardless of quality (which is pretty poor right now)) brackets (parentheses (these things (you know what I mean (you've seen enough of them so far (and will see even more after the editors get through adding their comments (and thus losing the reader (if he is still awake (and not already lost)))!))!) one can add (or even multiply (as was the case last time)) to one (believe it or not, this is still the first (and last (only?))) sentence.

Sincerely

## Dear mathNEWS:

All right! Now you've really done it! We do not like to be addressed to with prefixes such as Mr., Mrs., or even Dr.!! Get the name straight, folks!! We are getting sick and tired of such abuses.

Imprint
Dear Imprint, M.D.:
Once again, mathNews apologizes for the inconvenience.

## 2 Proofs that Lineups Don't Exist

This issue's proof attempts to comfort the lunch time reader of our rag by assuring him that the line-up he is standing in doesn't really exist, and he can buy his food at the $C \& D$ stand as soon as he finishes reading these proofs. (A lineup is assumed to be greater than one person.)

Theorem: lineups don't exist
proof 1 (by induction):
Let $n$ represent the number of people standing in front of the C\&D stand. When $\mathrm{n}=1$, there is one person in front of the $C \& D$ stand, so there is no lineup.

Assume that when $n=k$ there is still no lineup in front of the $C \& D$.
Now, when $\mathrm{n}=\mathrm{k}+1$, there is one more person in front of the C\&D stand than when $\mathrm{n}=1$. But when $\mathrm{n}=\mathrm{k}$, there was no lineup, so noone was there. Therefore there must be 1 person in front of the $C \& D$ stand now $(\mathrm{n}=0+1)$, but 1 is not a lineup either.

Therefore, by induction, there is no lineup in front of the $C \& D$ stand. Enjoy your lunch.
Proof 2 (by contradiction):
Assume a lineup exists. Leave. Look around. There is no lineup anymore. Therefore the assumption is false and by contradiction a lineup does not exist. Now hurry up and get in the nonexistent lineup before it gets any longer!

Continued from Page
zero net movement. What we should do is push, and then pull, and yank to the left, and go into a square dance maybe, take' a jerky tour. There's a game wheré two players try to snatch a handkerchief from the ground while retaining their grip on opposite ends of a broomhandle. it's a hèll of a lot more entertaining than tug'o'war.
practical ending: We started out with the aim of upping the quality of mathNEWS by making a few changes and ended up with a totally different publication put out by the same people. We don't want to talk about ourselves too much, so this is the last time you'll read anything about us; if you want to learn more, ask one of the contributors listed on the back page. This is a summer experiment, so we're willing to try a lot of things that haven't been done before; anyone can write for us if they give alittle bit of thought. We won't be publishing regularily, owing to a wish not to use filler, so you'll have to keep an eye out for future issues. I've said enough already; dive in.
functional ending: Like it or not, you're a member of the Thin-Spreading Club. What we hope is that you'll become an active member, and most of this publication is devoted to helping you achieve that. It should be obvious that what we really want to do is put ourselves out of business by becoming unnecessary. Everyone has the basic curiosity to find out what's happening; unfortunately, a lot of people are scared, introverted, too busy, or just plain 'lazy. If you think'this is an artsie-type idea, then you've missed the point: artsies, mathies, and n-jinears are iargely artificial divisions of people, people who all like to have a good tíme. Luckily for us writers (and for the unemployment rates in this country), everyone has a different idea of what a good time is. We hope you will find yours here.
\{This article was the popular introduction to ECLECTIA, which might have been volume 20, number one of mathNEWS under normal conditions. It seems that the more mathNEWS changes, the more it stays the same because this was the only product of volume 20. In the fall, mathNeWS volume 21 hit the stands (and the garbage) with the same quality of any other issue. Alas there was but one issue of ECLEĆTIA ever to be produced. A proposal has been made however, to prop out a revival of ECLECTIA later this term and in the dying days of successive terms. If you support the idea, make your views and news known to us by way of mathNEWS, MC3035, the mathnews or mathnoos accounts' on the Honeywell $65 / 80$, or the black box outside the C+D lounge on the Math building's third floor. For ECLECTIA, this is Mark Kahnt. $\}$

## Continued from Page 2 CC to Village

According to legend, this tunnel (if it existed) connected the Campus Centre to the Village residences. This was reportedly closed off
some years back due to sexual assaults in the tunnel.

And that's the tunnels at UW to the best of our knowledge. Please tell us if there are any more. Use the tunnels, but please take care at night when using them as you never know if there are any robbers, rapists, etc. down there. Nevertheless, the tunnels can save you a case of frostbite if you are dodging around from class to class.

## Happy tunnelling!

## Hooked

Wonder what I'll do today,
Solve the Cube another way.
My fingers numb,
My swollen thumb,
I should have thrown the thing away.
Save me from my Cube distress:
Forty seconds, not one less.
Though I try,
Don't know why,
Forty seconds is my best.
Then a record, thirty-nine,
Slows the chaos of my mind.
For a while,
In my smile,
Feel the fever, hid behind.
I'd go insane, they'd me inform, This just because I won't conform.
To stop a while,
Is not my style,
I have to stay in my top form.
Yes, I'm a Cuber, nothing less;
Rubik's Cube's what I do best.
A ruined thumb,
My senses numbed,
As I await my Cubic rest.
M. Kuindersma

The University of Waterloo Drama Department Presents

by SAMUEL BECKETT directed by Douglas Abel

THEATRE OF THE ARTS
Feb. 15-19, 8:00 p.m.

Tickets: $\$ 5.00$ ( $\$ 3.00$, students \& seniors)
U. of W. Arts Centre Box Office 885-4280

## UltraClassified

LOST \& FOUND ...Just a reminder MathSoc does have a lost and found. some current items we have in our possession:

- l pair of glasses (in a blue vinyl case)
- RER DAVIES student ID card
- 1 scarf
- miscellaneous text books
- various assortment of gloves

To claim any lost items, drop by MathSoc (MC 3038) and provide an adequate description of the article.

MGB '83 ... Math Grad Ball is on March 26th. Tickets soon on sale, if not already. Watch this space!

HEY, KIDS!! ...MathSoc pink ties on sale!! Just in time for co-op interviews! Goto MC3038.

Masthead East: Well, this mintir concludes our mathNews activity for this issue. I'll let Scooter! take the larger area, since I wrote it last ish...hope you're feeling better, Glenn... sorry about the short Real Mathies, but we got a LOT of response last week; keep it up! We'11 (hopefully) be here two wetks from now! Hint That's it.... 73 de VE3LRS.eeree.djcl QRT

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Please address any enquiries to:

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mathNEWS
MC 3035
University of Waterloo
200 Uni versity Avenue West
Waterl00, Ontario
N2L 3G1
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## Bird Bath: mathNEWS Course Survey

The responses are starting to trickle in for mathNeWS' latest survey. However, we will not list any of the rankings or comments until the last issue of the term to avoid bandwagoning. In the meantime, please take part in this simple survey by submitting the following information to mathNEWS:

1. The course name and number
2. The ranking of each course $10=$ baaad! to $10=$ woocowww! )
3. Any comments you may have about the course.

We are especially looking for ratings of upper year courses. When all responses are collected by March, or thereabouts, we will tally them and present the data in mathNews.

## Masthead West:

Step right in to the lovely lodge here at Masthead West. We present the two and only diligent workers here tonight, djcl and Scooter! Then there is Sean, who just happens to be playing on the bun and vm , and... We graciously thank Glenn McFarlane, Former rag editor Ross Brown, and even Sean for their contributions. Much thanks to all of those REAL Mathies who tried to explain what made them so real. Welcome back to Grounded Lightening and many thanks for the terrific article on page three. We even thank Mark Kahnt (thought we got rid of him with Stream 4) for his otfer to put together the ECLECTIA Project. We look forward to there being a classy version of mathNEWS (sure thing Jethro). We hoped to be out by eleven, well cp disconnects @ 22:43

## HONEYWELL, PA.

Well, I'm living on the Honeywell
And my programs aren't running too well In the Gandalf room, they' re killing time Toggling their switches, waiting for lines

Question 3 is like the Second World War And we haven't written FORTRAN before So we won't be getting sleep toni-i-i-i-i-

- Billy Joel (paraphrased)


