year: 2000. It was decided to spend the MEF on a newer, brighter and unfortunately bigger pink tie to be unveiled on campus day... Needless to say, $\{$ enrollment was down that year.


## End-of-Term Blahs

Another Four Months Gone By...

Another term winding to a close... So what have I accomplished?
I mean, I've gone to classes, done midterms, and soon enough, finals. I've worked somewhat diligently on my undergrad research work and have made good progress. I've landed a great job for the summer (sorry, Matt)...
By almost any measure, my term has been an extremely successful one. I'll be getting good grades, good pay, and probably some money in scholarships as well. I have post-graduate studies, a promising career and great opportunities to look forward to in the months and years ahead.

Still, I can't help but get the feeling that despite all this success, all that I have achieved, that I'm not really any happier than I was, four months ago. So what's it all worth, what was it all for? It could be that I'm crazy, that I'm the only one with this weird, freakish feeling, but somehow I think there are others out there like me, other people asking the same question: "What's the point?"
What exactly is it to be happy? Though a discussion of the answer to this question would likely (and probably has) fill up more pages than there are in this issue, I know with some certainty of moments in my life when I have been happy. And at the moment, I have nothing to be unhappy about...
Sure, I've made new friends this term, done new things, and on the balance had a pretty good time, and were I the religious type I would be "thankful" for that. But was there any moment when I felt completely, totally happy? Happy enough, that nothing else seemed to matter, that every worry, every trouble in my life could be, for that moment, simply forgotten? Not really. In fact, though naturally there have been a few intensely happy moments in my life, I have never felt it.
Some may say that I'm just full of impossible ideals, that I'm a dreamer, a "hopeless ronantic." Perhaps I am. Nevertheless, I believe that there is such a moment, such a feeling of "completeness" for which everyone strives, whether or not they are conscious of it.

In that light, a feeling of "incomplete happiness" is therefore hardly a problem, but rather a normal and, dare I say it, healthy condition.

I still have the nagging worry, however, of never reaching that goal. What if, I sometimes think, I were to have some catastrophic encounter with a truck while crossing the road tomorrow? (A rather morbid thought, but a rather inevitable side effect of realizing that I probably won't live forever...) Would my entire life have been spent pursuing empty goals and hollow ideals, putting off happiness until some later date?

There has been the occasional suggestion by many that finding a girlfriend/boyfriend/etc. is one (and a few say, the) road to happiness. I do not have a girlfriend. I may or may not be bitter about this fact; it really doesn't matter here. Though I certainly wouldn't mind (more strongly put, I certainly would like) having a girlfriend, I know that having one would not be a guarantee of happiness. True, there would be times when I would be happier, very much so even, but there would most likely be new worries, new challenges, new problems. Most importantly, I can't believe that finding a soulmate is the answer to happiness, because that would mean effectively postponing happiness until such a time.

What is it then that keeps me going? From what do I draw the optimism and enthusiasm to do whatever it is that I do each day? How do going to classes, doing programming assignments into the wee hours of the morning, and studying for finals make me any happier?

Obviously, they don't. However, if there's one principle that guides my life, my "quest" for happiness, it's serendipity. Happiness, I believe, cannot in itself be sought; it is not an objective that can be worked towards, that can be looked for deliberately and found. Instead, we do what we do because it seems like a good idea, or because it is what others expect of us, or simply because there's nothing really better to do. Somewhere along the way, I believe, we stumble into happiness, often where and when we least expect to find it.
"Having nothing better to do" is hardly a good motivator, and the most of the people who attend university solely for that reason tend not to last very long. There is some amount of happiness, not insignificant, in accomplishment and success... "Some" happiness is hardly a compelling reason, though. Why don't I find happiness flipping burgers at a fast food joint (where, by my argument, it's equally possible to be perfectly happy)? Why do I choose to write pages of math exercises, reams of code about which, really, almost nobody cares? Why do I write a rambling article that, likely, almost nobody will read? Because I can.
Not being a believer in fate, I can't say that it's what I was "meant" to do. While I can state lofty goals of "helping humanity" in whatever way that I can, it sounds a bit over-idealistic, even pretentious. My purpose is best expressed at the personal level: I live for no other reason than to explore and fulfill the possibilities of my existence.
And happiness? I scrape little bits of it together from wherever I can: the work that I do, the people whom I help, the friends whom I care about. What possibilities, what happiness will tomorrow bring? I can only hope...

Viêt-Tâm Luu

## Just a Few More Days

Here's hoping everyone has a great summer

## ISSN 0705-0410

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4 life: Matt "So-Krates" Walsh

## More AMWF Mayhem

amok amok amok amok...

Hello everyone and welcome to another day of AMWF action! Today the combatants of the AMWF get it on in singles matches! Also on today's card we have a triangle match, and the m.N.e introduces a new member: Stone Cold Chad Severn in an elimination match!

## Singles Matches

- Snuggles the Dangerous pinned The Gnome with a sunset flip. (0:18:41)
- Supermathie pinned The DE-Master after a diving shoulderblock. (0:14:30)
- Gold Patboy of Egypt pinned Lucky with a small package. (0:13:52)
- John "Ice Man" Winters pinned Jim "Hitman" Martin. (0:20:31)
- Sly "Joy Toy" Morolto pinned El Turd after a flying sunset flip. (0:12:53)
- Windsprint pinned Stan Broderick after a jack-knife powerbomb. (0:28:02)


## Triangle Match

- Hick O'Death pinned Pylon of Death after a power bomb. (0:22:50)
- Hick O'Death made Dean Pylonko submit to a Boston Crab. (0:25:36)


## Elimination Match: AMWF vs m.N.e

- Stone Cold Chad Severn pinned Rob Roy after a splash. (0:06:08)
- Whoop-Ass pinned Mike "Hammer" Hammond with a double underhook backbreaker. $(0: 19: 59)$
- Matt "Blackheart" Walsh pinned Icor the Icon after the Skull Smasher. (0:27:36)
- Matt "Blackheart" Walsh pinned Smoking Buddy after a flying legdrop. (0:29:35)
- Hollywood Latrell pinned Whoop-Ass after Latrell's Revenge. ( $0: 31: 37$ )
- Survivors: Hollywood Latrell, Matt "Blackheart" Walsh, Stone Cold Chad Severn.
So the m.N.e shows they are a force to be reckoned with here in the AMWF! Giving us his take on the days action is Hollywood Latrell.
What did I tell ya, brother? There's no dissention in the m.N.e. We're all one big happy family. Me, the Hammer, Blackheart and Stone Cold. Workin' as a team. Getting the win. And with this win, brother, we will rule the AMWF. And there's nothing you can do to stop us. The m.N.e is here, and here to stay. And when you're in the m.N.e you're in for life, brother. Start the porno music!
Thaks for those comments, Latrell! We'll see how you do in a singles match when you meet me in the ring in the next card, coming with next term's first issue of mathNEWS!

Icor "It was a fast count! He pulled the lights!" the Mighty

## Subscriptions!

Yes, you can take it with you

Maybe we didn't quite get through last issue. See, in our own subtle way, we here at mathNEWSwere doing our best to warn you all of the perils of heading off to wondrous places without making sure that you'll have a vaguely steady stream of mathNEWSes to follow you.

Really, of course, all we were doing was trying to justify our own miserables existences and assure ourselves that, yes, people do read this rag. But whichever we were really trying to do, we seem to have failed somewhat. So let's try it again:

You want to subscribe to mathNEWS during your off-term. You'll receive (postal-strike unwilling) all six issues to your door or P.O. Box.

Here's how our brilliant scheme works:

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* The "one year" indicates 3 terms that are not necessarily consecutive. That is, if you're at $\mathrm{U}(\mathrm{W})$ for the Winter 98 term and off on a work term for the Spring 98 and Winter 99 terms, then you could get a year subscription for Spring 1998, Winter 1999 and Fall 1999. You could pick up the Fall 1998 and Spring 1999 issues in person!
If you can't figure that last paragraph out, don't worry, it's not on the STAT 231 final. But, you can stop by the mathNEWS office or email us at mathnews@undergrad.math.
Subscription forms (along with cash or cheque made out to mathNEWS) can be dropped off at the mathNEWS office whenever one of us is around or slipped under the door when we're not. If you are mailing us a subscription form, please send it to the address listed in the ISSN along with your cheque. ( $\mathrm{F}=$ Sept. to Dec.; W = Jan. to Apr.; S = May to Aug.).

The mighty mighty mathNEWS editor

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## Hammer to Head mathNEWS West Coast Operations

Mike "Hammer" Hammond, after two terms as mathNEWS editor and numerous others as a writer, artist, and productionist, is leaving Waterloo and headed for Vancouver, to head mathNEWS' West Coast and Pacific Rim operations. In an exclusive interview, Hammer said he was optimistic about mathNEWS' future and that of the math/humour publication market, despite mathNEWS' western operations having recently undergone major restructuring as a result of the recent Asian economic crisis.

Hammer led mathNEWS for two successful terms as co-editor (along with Mala "Krakko" Krishnan), in the Fall of '95 and Winter of ' 96 . He returned in the Fall of '96, and in his "mathNEWS afterlife" (a common condition amongst mathNEWS editors) continued writing and doing artwork for mathNEWS right up until this term.
Some of his better-known works include highly successful (and sometimes inadvertently controversial) game parodies such as the "Mathies: the Gathering" series (mathNEWS volume 69) and the two "You Don't Know Math" articles. Hammer's lauded drawing skills have also been showcased on numerous mathNEWS covers. He will also be remembered for the many jabs he made at the CSC in virtually every article he wrote.

The staff of mathNEWS' Waterloo operations would like to thank Mike Hammond for many terms of great service and leadership, and wishes him all the best of luck in his new life. Here's to you, Hammer!

Viêt-Tâm Luu
(Below is a photo of the luxuriously appointed mathNEWS West Coast Headquarters. The editor would like to wish Hammer and his staff of 29 peguins and a trash compactor all the best.)

## If We Lived In A World Without Nails

Then Mike Woulda Came Up With Another Nickname

Hammer, we hardly knew ye
As long-time readers of mathNEWS know, Mike "Hammer" Hammond has contributed a great deal to these pages. As a tribute to Hammer, I've searched through all the back issues to create a list of everything he has submitted. I present it here, in all its glory:

## Without Hammer, mathNEWS wouldn't have had..

- The filler "Don't forget Remembrance Day!" on page 14 of Volume 69, Issue 4.
- The profQUOTE by Moskal in Volume 65, Issue 3.
- Numerous apologies, corrections, and lawsuits.

Not only that, but hundreds of misspelled words would have been published if not for the tireless efforts of Hammer (and the decision to not publish his "Artsie Dictionary" article).

Production Nights will never be the same. Mike would gather us 'round the malfunctioning MFCF systems, and regale us with his tales, of which he had six. "One for each finger!" he used to say, causing us all to laugh and vomit.

And who could forget his excellent hygiene, reading skills, and his ability to hold his breath for ten minutes?

But, they finally cleaned out the broom closet on the third floor and the Math building lost a tenant. So, Hammer, as they say in the east, is going west. We hope they like his ventriloquist act in Vancouver.

Ah yes, gentle reader. I can see the worry lines on your forehead. "What," you ask, "will mathNEWS look like without Hammer's participation and leadership?"

You're looking at it, bub. He didn't show up at this issue's production night.

So long, Hammer. And thanks for all the puns.


## The Way to Success Is Through ACE

Are you concerned about finding a job when you graduate? Have you thought about creating your own job? If the answer is "yes," then you will certainly be interested in learning what ACE has to offer you.
The Association of Collegiate Entrepreneurs (ACE) is an international non-profit organization that services the needs of students whose interests include business ownership, by providing them with support, resources, and education to be a success in the future. Becoming a member of ACE will allow you to interact with other young entrepreneurs and will also make you aware of the endless opportunities that are out there if you choose to develop your own business or are simply interested in business. ACE helps young entrepreneurs succeed through education/information, networking and coaching/mentoring.
One of the major projects that ACE is presently working on is the establishment of an off-campus small business centre between the University of Waterloo and Wilfrid Laurier University. The ACE Enterprise Centre will be a non-profit organization, with the intention of stimulating awareness and interest in small business. The organization will be dedicated to helping new businesses start-up in the Waterloo region, but will also provide assistance for many existing businesses.

This is where we need YOU and the valuable skills that you have, whether they be in the field of mathematics, science, engineering, business/economics or technical writing. If you are a student working in this organization, you will gain valuable entrepreneurial skills through everyday business activities that will be of great benefit to you in the future. This experience looks great on a resume as well. Remember, not everybody can say that they helped operate a $\$ 90,000+$ business.

ACE also holds several conferences for youth to exchange ideas, source valuable opportunities, and learn from the brightest minds and the most dynamic entrepreneurs.

If you are interested in taking control of your future and want to see what ACE can offer you, I invite you to join our local-based chapter here at the University of Waterloo. There are currently more than 40 chapters of ACE in four countries. Our particular chapter is unique since we include Wilfrid Laurier University as a vital member of our chapter. Together we are known as ACE Laurier-Waterloo.

If you would like more information regarding ACE or would like to become a member, please feel free to contact Sandy Clipsham at $743-9903$ or you may E-mail him at ajclipsh@sciborg.uwaterloo.ca. He will be more than happy to respond to any of your questions or concerns.

Dwayne Weppler
Don't you just hate it when you have nothing to say, but you've got a few inches of space in which to say it anyway? Doesn't that just bite? And how about to read it?

## Limit Shirts are in!

Come buy yours at the MathSoc Office

## Apathy 107

A new course, Apathy 107, is being offered by the Math Faculty next Fall term for first year students entering into the recently created Math / Recreational and Leisure Studies double major program. The course consists of a two-hour lecture Monday morning beginning at $8: 30 \mathrm{am} .$. or whenever. Labs will be held random times throughout the day Monday through Friday in MC3001.

## Course Corequisites (Recommended):

CRD 101 (Basic card games)
CRD 132 (Introduction to Bridge)
MAG 221 (Collectible Card Games: Magic - The Gathering) BLAT 320 (Language requirement: Basic ComfySpeak)

Course Antirequisites: None. However, the Faculty strongly discourages APATH 107 students from registering in Honours Math courses.

Class size is limited to 30 people, as nobody wanted to teach a larger class.

Michael "Zaphod" Brown

## 3000000000000000K

mastHEAD<br>Surprise! It Got Finished!

OK, so I've learned something this week. It's all completely well and good to speculate about having an issue of mathNEWS coming out during the exam period. However, it's quite another thing to actually put an issue of mathNEWS out during the exam period. Especially when you decide to skip the conventional Production Night in favour of, "just get me your articles by such-and-such a date".

You can all laugh at me now.
But hey, despite the fact that it's out nearly a week later than I'd announced, it's here, in your hands, or on your screen, or wherever. So enjoy it.
Thanks to everyone who contributed stuff to this article, whether as writers or "productionists" or just people who hung out in my office and babbled at me. And of course a big thankyou to Marion and the clan at Graphics Services.
I've got to say that, although it's been a hastle, I've enjoyed being sole mathNEWS editor this term. Not so much that I'd do it again anytime soon in a term that I'm taking courses that rhyme with "Seal Paralysis Zoo", but hey, what can you do?
With any luck and a certain amount of inspiration, I'll be gracing (?) these pages during the summer as a simple writer and productionist. In the meantime - or downtime, whatever - I bid you all good luck and a fine vacation, whether it be one week or four months, and join with an old Ottawa Cable 22 show in wishing you all a nice car. Until later,

Matt "So-Krates" Walsh

## Mr. Subliminal Speaketh

And there was much rejoicing. . yay

My fellow humans, there is trouble brewing in our otherwise peaceful and happy lives. Revolution is in the air, and both the Free mathNEWS Press and the Republic have vowed not to rest until the other is at their mercy.

Many of my flock have come to me, filled with grief, suffering, and uncertainty. But rejoice, my flock, for I have seen a vision! Yes, I had a dream! And in my dream, I have seen and heard what will happen to us all. And I was urged, indeed instructed, to share my vision with you.

In my vision, I saw a war! A war, unlike any fought on this Earth, to determine the ultimate fate of all of us! And lo, from beyond the abyss known as the MathSoc office, there came the mighty Republic! Trumpets sounding, flags flying, and the mighty ruler Buchanan all led the procession-a procession so epic, it seemed to fill the very hallways of the 3rd floor. And hark! from the depths of the Comfy Lounge, there strode proudly the Free mathNEWS Press, with their brave leader, the one called So-Krates, without a trace of fear. Indeed, it seemed the very hand of God lay upon his broad shoulder.

And the battle between these 2 mighty forces erupted! Blood stained every computer terminal, screams of pain and agony drowned out the mating cries of the Bridge players... indeed, the entire Math building was plunged into a state of darkness.

However, no four walls could restrain such a brutal battle, and soon, the war spread itself out onto the entire campus, seemingly cursing everything its shadow touched. Mathie turned against mathie, artsie rose up against artsie, and engineer turned to engineer and said, "Hey, wanna hit the Bomber?"

And so it came to pass that, as this huge battle wore on, its intensity and ferocity seemed to weaken, ever so slowly. Despite the best efforts of both sides, there was no turning back. The war was ending, with neither side having anything to show for it. What powerful, external force was applied that was able to stop the momentum of such a horrendous display of human brutality?

It was apathy, my flock... the math students did not care for such a war, as they all had exams to write and projects to finish. Both the mighty Republic, and the rebel Free mathNEWS Press, saw that they did not have the power over the students as they once thought. And lo, both sides were forced to sit down and negotiate peace, while their subjects toiled away at their studies.

And that, my dear flock, was my vision. So do not despair, my people, for this revolution will soon flicker as a candle in the wind, because of the one powerful weapon each and every one present today has-apathy! The mere fact that you are, right now, not caring or even hearing a word I've said, will save all of us from this dreadful, dark war! You have the power! I have spoken!!

And, incidentally, if you did not like or believe my vision, then you can go ahead and write your own prophecy.

Chris "Mr. Subliminal" McGuire

## Puzzle Solutions

[Blue's been a bit busy lately, so I get to tell y'all the solutions to his "little puzzles" from last week. - $\Sigma E d$.]

Question 1: Cover the entire Room once; this requires $140 \mathrm{~m}^{2}$ and leaves $60 \mathrm{~m}^{2}$ of rug. Cover $24 \mathrm{~m}^{2}$ again to get the $24 \mathrm{~m}^{2}$ covered exactly twice. This leaves $36 \mathrm{~m}^{2}$ of carpet unused. This must be used to cover an area twice (for a totle of three layers) and so the area which is covered three times is $18 \mathrm{~m}^{2}$.

Question 2: The original configuration consists of 100 rows of 100 circles. To arrive at the new configuration we shift every second row slightly to the right so that the circle originally on top of the first circle of the first row sits on the first and second balls of the first row, second on the second and third, etc.

This will require removing 50 circles; we will replace these later. The new configuration has 100 rows which alternate between 100 and 99 circles. The centre to centre vertical distance between adjacent rows is $\frac{\sqrt{3}}{2}$ units. Thus the height of the 100 row configuration is $1+99\left(\frac{\sqrt{3}}{2}\right)$ units. The room left at the top is thus 100 minues this, and we end up being able to pack 15 more rows, of which 8 contain 100 circles and 7 contain 99 , a total of 1493 circles. Recalling the initial 50 circles we had to remove, this gives us an additional 1443 circles which can be put in the square.

Question 3: Let $b$ be the number of black balls, then there are $n-b$ white balls. For two like coloured balls, the number of way of obtaining the pair is:

$$
\begin{aligned}
\binom{b}{2}+\binom{n-b}{2} & =\frac{b(b-1)}{2}+\frac{(n-b)(n-b-1)}{2} \\
& =\frac{b^{2}-b+(n-b)^{2}-(n-b)}{2}
\end{aligned}
$$

For a mixed pair, then number of ways of obtaining the pair is: $b(n-b)$.
Thus, for equality, we have

$$
b^{2}-b+(n-b)^{2}-(n-b)=2 b(n-b)
$$

which gives

$$
4 b^{2}+(-4 n) b+n^{2}-n=0
$$

Solving for $b$ :

$$
\begin{aligned}
b & =\frac{4 n \pm \sqrt{16 n^{2}-16\left(n^{2}-n\right)}}{8} \\
& =\frac{4 n \pm 4 \sqrt{n}}{8} \\
& =\frac{n}{2} \pm \frac{\sqrt{n}}{2}
\end{aligned}
$$

Since $b$ must be an integer so $n$ must be a perfect square, and there are $\frac{n}{2}+\frac{\sqrt{n}}{2}$ black balls and $\frac{n}{2}-\frac{\sqrt{n}}{2}$ white balls or $\frac{n}{2}+\frac{\sqrt{n}}{2}$ white balls and $\frac{n}{2}-\frac{\sqrt{n}}{2}$ black balls.

## Cryptogram Solution

The solution for the final cryptogram is:
With all your science can you tell how it is, and whence it is, that light comes into the soul? -Henry David Thoreau

## gridCOMMENTS

Cryptic Guy
Howdy All.
I got two submissions to the Cryptic this week: Ian "the Word Guy" Facey and Claire Bilodeau. Neither of them got the solution, but Claire had only seven squares wrong, so she's the winner! Congratulations, you can pick up your prize in the MathSoc office. [If it's ever open. $-\Sigma E d$.]
It looks like exams are finally catching up with me, and so I can't make the cryptic for this week like I had hoped. Sorry to all the people who wanted to finally be able to do an easy one. However, Gridby has made an exciting Unconventional Cryptic - I'll be in the comfy next week if anyone wants to work with me on it.
However, for all those people who need some kind of word challenge, here's one I've been working on that circumstance dictated. (This actually works better as a programming project, although it is possible to find four or five answers without going pathological.) Jack and Gill have grown up, and are planning their first child, a son. Jack A. Undiced works at a company who uses (first initial, middle initial, first 6 characters of the last name) as an e-mail address, and, unfortunately for him, makes him "Jaundice".
Gillian E. Bonda's company uses (first 6 characters of last name, first initial, middle initial), which unfortunately forms "Bondage". They want their son to be able to live with his name no matter which company he works for. They have both agreed to change their last names to whatever the child's new last name will be (their last names are silly anyway!), and they both do not care what their new addresses will be (they're willing to sacrifice for the sake of their child). What options are available for first names if the parents do not care what middle name or last name is selected? (The last name does not need to be a word.) What options exist if they want to allow him to work at a company that uses (first initial, First 7 characters of last name)?
(Example: Any first name starting with "A" would work, because, the child could be A. L. Pine, Alpine or Pineal)
[Um... I'm not sure that Doug's making any sense here. But whatever. - $\Sigma E d$.]

Doug "Still bitter that the company I'm working for wants me to be 'beckerds"' Becker

## Conventional Guy?

[Actually, I haven't heard from Tim in a couple of weeks. But so's you know, there were also two submissions to his crossword, and Claire Bilodeau with two squares wrong is the winner. Congratulations, Claire, you seem to be cleaning up this term. Ever thought about writing gridWORDs for mathNEWS? - $\Sigma E d$.

## mathNEWSquiz Solution

Good day everyone. There were two squiz submissions from last issue: the Co-op Guys scored 39 points and the win, and Ian Facey got $24 \frac{1}{2}$ points.
The answers to Squiz 6: (1) 6 (2) 3 (3) 1 (4) Argentina (5) cesium-133 (6) Burkina Faso (7) 1984 (8) North Americian Soccer League (9) United States Football League (10) She has a can of pop. Can's of pop aren't available at Bomber (11) 5 (12) The Campus Centre Pub (13) 3 (14) 1123 (15) \$2 (16) 12 m to 16 m (17) 13 (18) Mitchell (19) The Addams Family (20) line (21) Ian Fleming (22) Morty and Ferdie (23) Mortimer (24) Waldorf \& Statler (25) Chico, Groucho, Harpo, Zeppo, Gummo (26) Debbie Gibson (27) NRVOUS (28) The WWII Scene (29) Stand By Me (30) Spencer Tracy (31) 3 (32) Raoul (33) La Boheme (34) Audrey II (35) adder (36) 17 inches (37) 60 feet, 6 inches (38) Nippon (39) Hellas (40) London, England (41) Stanley Cup (42) skin (43) liver (44) femur (45) 14 (46) Caspian Sea (47) Andrew Johnson (48) Howard Hughes (49) Cadillac sedan (50) Ostrich Have a good summer...

Squizmaster Blue

## Spermatikos in the Spring

Well, another term has come to it's end and thus another term of Spermatikos Logos. I reached a pinnacle in my puzzling career with last week's puzzle; unfortunately, responses to my masterpiece were rather low. That may be because the both Clue 7 and Clue 23 were incomplete (note to editors: you may have been taking that censoring thing a little too far...) Clue 7 should end in C3 and 23 in B1 if anyone still wants to complete the puzzle. The only submission (and a totally correct one I might add) came from Claire Bilodeau. Congrats Claire, pick up your prize in MathSoc. I am not going to print the entire solution because, well, it's very big. Although I can say in terms of the bonus that the Queen is mad, and the sanity of the King is indeterminable. If anyone would like a run down of the solution to the puzzle or bonus, please feel free to email me and I'll send a break down of the solution and how to arrive at it.
There won't be a new puzzle in this issue, although if anyone can explain to me the logic of life's little way of being consistently sucky, I'll send you a prize. Thanks for puzzling everyone, see ya next term.

Robin "All Spermatikoed Out" Stewart

## ultraCLASSIFIEDS

Needed: One dictator to rule a plush 900 -acre university with an iron fist. University includes military forces (Kampus Kops), and $\$ 340$ million net worth provides ample opportunity for embezzlement. Job requires previous experience as a dictator of either a small country, or another canadian university.

Please direct all inquiries to:
Presidential Nominating Committee
c/o Lois Claxton
University Secretary
University of Waterloo


1. Little profit in the atmosphere shows ability to go either way (11)
2. A doctor, minion get at giving life (9)
3. Mother: make note to see museum in NYC (4, abbr.)
4. Snitch spills nothing to the Germans (6)
5. Wise guys return in a bit, include shilling for person who has remarried? (8)
6. Noisily beheaded hiker produces blood (5)
7. Tell a story including use for story and revolt (8)
8. Wood lamp is broken near the beginning of earthquake (5)
9. Decision: Cold? Hot (not temperature for frozen water)? (6)
10. Confused engineer eats piece of apple (23)
11. Wretched bum overcome by bitterness gets candy (7)
12. Five on a cover is alright (5)
13. Latter half fall down in part of church (4)
14. Huge organization? Rather disorganized, erratic (5)
15. In the presence of even characters of farm, I would... (4)
16. ... promise to get past side of building (6)
17. Heart stimulator loses lunch, to start (6)
18. Otherwise come to terms with trial (6)
19. We surround knoll in no little amount of time (5)
20. Alien mostly dried water up (5)
21. Make airtight guarantee (4)
22. Can't find golf supporter report (it's foggy) (5)
23. Head of committee up and leaves for singer Horne (4)
24. Fly around north: it helps with depth percetion? (5)
25. Heave up, release load (4)
26. At audition, abandon bundle (4)
27. Nervous tenants ordered gyros (4)
28. Previously in concert (4)
29. Translate from French to English at first: 'profond'! (4)
30. Strange craft: four down, one to go (3, abbr)
31. A simple thing never starts at rest (3)
32. Plant suggests way of taking medicine aurally (3)


## Something a little novel...

[OK, it seems that Gridby's decided to go for one last kick a the mathNEWS can before he, too, leaves the province to go to B.C. mathNEWS Hall. So he's leaving us something by which to remember him. Be very, very afraid. - $\Sigma E d$.]

This puzzle is modeled after the statistical device used to demonstrate the idea of a normal distribution. Balls are dropped in the top and at each level of the device they hit a pin and fall either to the left or the right of the pin. The mathematical inspiration for Plinko, if you will.

In this grid, which has 11 levels, each pin is labelled with a letter. Words begin at the pin with the corresponding clue number and trickle down through the grid, moving down to the left or down to the right until the end of the word. For example the words shin, ship, shop, show, slop, slow, slew, and sled can be formed in this mini-grid:

$$
\begin{gathered}
\text { S } \\
\text { HL } \\
\text { IOE } \\
\text { NPWD }
\end{gathered}
$$

... but shed can't be formed, because it includes an unnatural bounce from the H to the E .

Gridby
[I'll be posting the full solution to this to the website or something in the first week of May. That should give everyone plenty of time to have fun with it. $-\Sigma E d$.]


