Mathsoc widely acclaimed

Mathsoc President-elect Gary Prudence will face a small council at the first meeting of the new Mathsoc council on March 23. Prudence along with new Vice-President Kevin Willis and Treasurer J. J. Long will face a council of seven reps as only 7 of the 18 positions open for elections were filled, all by acclamation.

In the past Mathsoc experienced hard-fought elections with high turnouts, and it was hoped that the interesting elections for Federation president and council would revive interest. It seems that Math students seem to be more interested in external elections (who represents them in the University) than in internal elections (who actually controls the society).

The acclamation on council can be partially blamed on apathy, but another reason could be the heavy workload Math students are now facing. The reason for the acclamations on executive is partially due to the fact of people in Mathsoc not wanting to run against each other and therefore running for uncontested positions in order not to cause society in-fighting. A number of potential presidential candidates did not run when the popular Gary Prudence decided to run. The present Society VP and former member of the Federation executive (Creative Arts) was considered to strong a favourite to win the post.

There is a possibility that nominations will re-open before the year ends. Also there are openings for the executive positions appointed by the council. In any event newly acclaimed councillors are:

2nd yr rep	Ernie Burke
3a-3b rep	John Ellis
3b-4a reps	R.A.G. White
	Brad St. Pierre

Anticalendar Progress Report

Due to an amazing amount of student apathy, the people doing course evaluations are swamped under. To make sure your class is evaluated, check the glass windows outside the third-floor lounge to see when your class should be evaluated, then come into the Mathsoc office (MC 3038), get the surveys and do it.

Notice to Profs: You can make sure your class gets done, by sending us a memo at least a day before you want to do Antical. We will make sure everything you need to do the evaluation is in your mail slot by the next morning.

Anti-cal Committee.

Math Faculty Council

New Degree Requirements Approved,

By an overwhelming majority, Math Faculty Council approved the new requirements for the B.Math. degree with many amendments. These requirements, scheduled to take effect September 1, now go to the University Senate for approval. Students currently enrolled can be exempted from the requirements.

A partial victory for students was won as a successful amendment moved by Dr. Mary Snyder removed the six courses per term maximum for students in third year or higher. There had been ambiguity with the definition of a full term (of which an Honours student must take four and a General student two). An amendment that passed defined a full term to be one in which a student successfully completes 5 half-courses, 2 of which must be in Math. A motion by J. D. Kalbfleisch to reduce the number of Math courses required for a Pass degree to six was passed. Students on the Curriculum Committee had urged in favour of eight. It was felt that for the degree to be really a B.Math. degree, and have some meaning, it should require at least half of the 16 courses to be in Math. Most faculty members did not feel that the Pass degree had to be maintained that way.

After the requirements were approved, the council amended its constitution by giving St. Jerome's College representation on the Standings and Promotions and Admissions Committees.

Dean Forbes reported that the Faculty's budget has only been slightly reduced for next year. He gave a progress report on the vandalism problem.

As the meeting was coming to a close, Mathsoc president Gary Dryden spoke to the council about a committee to be set up to examine the Anticalendar questionaire. Dr. S. Brown and Dr. G. Cross would be Faculty reps on this committee. Dr. Ralph Staal, a Pure Math professor, then rose to say that course evaluations in Math need to be greatly revised. Staal said that comments should not be allowed on the Antical and proposed a committee with a Faculty majority to examine the matter. Math student rep J. J. Long then spoke for Antical. He said that publishing of certain personal comments in the past had hurt Antical and should be eliminated. Long felt, though, that some comments deserved to stay as Antical was basically designed for the students.

Dr. Harry Davis then launched a heavy attack against the actions of Math Society. He accused the Society of purposely throwing away his response to the professors' questionnaire because they didn't want to print it. (Gary Dryden said that they simply lost it.) Then, Davis said that the students got a kick out of simply

Anticalendar Argued About

embarrassing and deriding profs. At this point, Student Rep Phil Lanouette rose on a point of privilege, accusing Davis of slandering the students. Before the discussion degenerated too far, Chairman Fryer gave the floor to Dr. Cross, who opposes comments on AntiCal. Cross said he would nevertheless work on Dryden's committee. Next month Staal's motion will be debated, and Faculty reps to various committees will be appointed.

Geometry of Seven

On Monday afternoon, March 22, there will be a special expository talk given by Professor D. W. Crowe of the University of Wisconsin. The entertaining topic, "Geometry of Seven", will be understandable by undergraduates, but graduate students and faculty members, especially those who are enthusiastic about finite mathematics, will also find it very interesting. It will be given in the colloquium room, MC 5158, at 3:30 p.m.

Metric > British?

Before I begin, I'll briefly discuss last week's homework. Andy Fraser gets a 99% (he lost the mark for incorrectly identifying it as assignment 2, instead of 3). He used the definition of a third as .0001 of a sidereal day (23 hours 56 minutes 4.09892 seconds) for all his calculations, but I had already told him that that would be all right. In future, however, only the original definition of a third (.0001 of a solar day, which is exactly 24 hours) will be acceptable.

Andy pointed out that the candela is defined as 1/60 of the luminous intensity of 1 square centimeter of the surface of a black body at the temperature of solidifying platinum (at 1 atmosphere pressure), radiated perpendicular to the surface. He suggested that a new unit replace the candela, with $1/100$ replacing $1/60$ in the definition. We have decided to accept his suggestion, and so the *leda* (for Light Emitting DiAde) will replace the candela (1 le = .6 cd). The *demon* (de) will replace the lumen, and the lux will be replaced by the *beautysoap* (be). 1 de = .6 lm, 1 be = .6 lx.

There are many people out there who are still unsure why Canada is converting to metric. The usual argument is that the British system has long served us well, and *everybody is familiar with it.* I maintain that this is not the case, and, to prove it, the following 12 questions (a non-metric number for non-metric questions) all deal with the **Imperial** system of weights and measures. For those of you who oppose the move to metrication, this is your chance to stand up and be counted. No calculators are permitted, and this is a closed-book quiz—anyone caught using a calculator or consulting any reference will be given an automatic failure.

(1) You walk 1 mile in 5 minutes exactly. You want to go from point A to point B, and, on a map with a scale of 30000:1, you see that A is 2 inches from B. How many seconds will it take you?

(2) How many pounds in a hundredweight?

(3) How many pounds in a gross ton?

(4) Which weighs more—a pennyweight, a drachm, or a scruple?

(5) How many gallons in a bushel?

(6) How many minims in a gill?

(7) What is the weight of 1 tun [sic] of water?

(8) Someone tells you to do your "duty". How much work should you do in order to comply with the request?

(9) How many square rods in a rod? (This is a legitimate question—the rod is a unit both of length and of area.)

(10) Here's a question every university student should get. How much beer is there in a firkin?

(11) Which is longer—a bolt of wallpaper or a bolt of cloth?

(12) Is 55000 *ft lbf / sec* a typical power for a motorboat or an electric lawn mower?

FEED BACK

Dear **mathNEWS**,
Why don't you make a comment about the Putnam results? See Klamkin's door.

We don't usually print anonymous letters, but we wanted to explain why anyway: we simply wanted to know who had won, before printing anything. The article is on page 3.

Editor.

FED REPort

At its March 10 meeting, Federation council rejected Andrew Siebel's nomination for Board of Entertainment Chairperson by a vote of 11-3 with 6 abstentions. According to the longest-surviving employee of the Federation (Helga Petz), it was the first time that Council had rejected the nomination of the only applicant for an Executive position.

I personally felt that Andrew Siebel had a great deal of experience in entertainment on this campus. I was impressed by the Inter-Society weeks, where he played a major role. His ideas for entertainment on this campus were close to mine. Also he seemed a strong enough person to make changes in the board, and able to resist the influence of the policies advocated by Art Ram over the past three years.

Many councillors felt that Siebel had too strong a personality for the board, and that he mismanaged Arts-Math-E.S.S. week, causing society frictions. There was a question of whether he could handle the pressures of the Board of Entertainment. Some councillors felt that his ideas on the B of E were not politically in line with theirs. Siebel supported Rorrison for president last January and many councillors who are sympathetic to Shane Roberts may have felt with Siebel running the Board of Entertainment and Bruce Rorrison running Orientation that Siebel's type of entertainmnet would be greatly influenced by Rorrison.

Unfortunately, some council members did not vote against Siebel for these reasons. A few voted against him because they didn't like him personally or because his wife is President-elect of Arts Society. I feel that a person being deprived of a postion because a relative is important is as discriminatory as a person getting a position through nepotism.

I hope that a newy surfaces soon in entertainment. They should be strong enough not to be easily influenced, and should have a basic working knowledge and experience in entertainment. Someone with these qualifications who is fairly new to the Federation would be an asset because they would not to adhere to old loyalties or battle old enemies.

As you know, budget time is coming up in the Federation. Preliminary figures by treasurer Manny Brykman indicate an average cut of 12% in the various budgets of last year. There is the worry that unemployment may cut enrollment and the Federation's student fee revenue. Also Brykman plans to set aside a certain amount this year as unallocated. This is so that council can be more flexible with its spending, and at the same time know how much money is left in the unallocated fund.

Last year we were rather careless in estimating the unallocated funds. There was a disagreement between myself and Shortall over how much we actually had left. Despite my warnings, council seemed to feel that our unallocated fund was limitless and thus allocated money from it quite freely. This led to my resignation as Treasurer last November. Later I was to find that the budget would be overspent.

Manny Brykman plans to keep tabs as accurately as possible on the unallocated fund and make council more aware of it. I support this and will support the Treasurer if he finds it necessary to tell Council or Executive to exercise restraint. I know how it is to have council not listening to your warnings. I am determined that the same thing shall not happen to the present Treasurer.

Finally I'd like to remind you about the moratorium of March 24 to discuss the student unemployment problem. With no jobs in the summer and tight OSAP restrictions, many students will be unable to return to Waterloo in the fall. Your support is needed for the moratorium on Wednesday and the April 3 rally in Toronto.

If students make enough of a fuss, the Ontario government may make some concessions to allow us to find employment to keep us out of their way. Many must attend for this to be a success. We need more than the 34 who showed up in Toronto on January 2. Remeber, it's the future of your education. I hope more details of this will be available. Time is running low and more advertising would ensure better success.

JJ Long
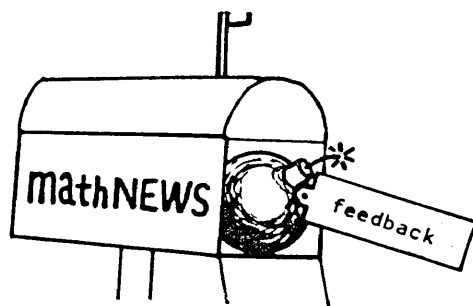
Why shouldn't it?

Dear *Gridword* Editor,

It is not surprising that you only had two "correct" solutions to the previous week's *Gridword*. The clue "no shortage of this among some profs" could quite easily have been answered TAs, BAs, MAs, as well as the so-called correct solution of "gas". When there is a non-unique solution to a gridword, you should permit all possible correct solutions—otherwise, the grid solver has to make his choice by guessing which answer the grid creator intended. Mind-reading should not be a prerequisite for *Gridword*-solving!

Owen Leibman

Objection!

Dear mathNEWS,

I would not object to allowing smoking in 3014 if my locker wasn't in there.

Actually, what I'll never understand about smokers is *why the hell do they start?*

D. M. Canzi

Putnam Competition
Honorable Mention

In this year's Putnam Contest, Waterloo was unable to defend its championship—we finished sixth out of 285 North American college and university teams (California Institute of Technology took the team title). The three members of the team, chosen on the basis of performance in previous competitions, were Richard Anstee, Mark Brader, and Greg Fee.

In the individual category, Joseph Quinsey won a $100 prize by finishing in the top 10, out of more than 3000 competitors. James Gardner, Ian Goulden, and Matthew Smith all received Honorable Mention for finishing in the top 2%....better than any of the team members did.

Tale of 3 JJBTs

It was the best of times, it was the worst of times.

The worst of times came on Saturday, as the first of the three **JJBTs** named in the headline, the road hockey division, played its second, and probably final, match of the season. The opposition tactics became apparent quite early, when a vicious attack on Catfish before the game began left him with a dislodged screw on his eyeglasses. While he was away at an optician's for repairs (Bud Jones Optical, who fixed his glasses for no charge—Catfish later commented, "They made me feel like a somebody."), the game began and the opposition took an insurmountable lead over the leaderless **JJBT**. Even after he returned, the gap did not close sufficiently. (In fact, it probably widened quite a bit.) At any rate, the road hockey division truly showed that it was worthy of the team motto—*Concordia cum Perdiendo*—In Harmony with Losing.

The best of times concerns the other two **JJBTs**. As I mentioned last week, we will be representing UW at the First Ontario University Frisbee Championships. However, the rules of the tournament limit teams to eight players, so we will be entering not one but *two* teams. Among the consequences of this action is the fact that one of our entries is now guaranteed not to finish dead last.

We have added two new members, Bobby "Johnson-shoes" White and Exil Q. Trob, to the team, and both seem to be fitting in very well with the rest of the team. We have had two scrimmages, and I can honestly state that they included the finest examples of Ultimate and Guts Frisbee that I have ever seen. The freestyle teams need work still, but their abilities increase at least tenfold with each scrimmage. (Remember that $10 \times 0 = 0$.) So far, our only casualties at the scrimmages have been two frisbees mutilated beyond hope. We should be having at least two more scrimmages before the big weekend (March 27 and 28), and I feel certain that these practices will enable us to qualify easily for a tin medal.

'Tis a far, far, bigger contest we enter than we have ever done; 'tis a far more distant place we go to than we have ever known.

Housing Survey

If you live off-campus and have not already filled out a housing survey, come to MC 3038 and get one.

Help Wanted

As your newly elected (acclaimed) Mathsoc leaders, we wish to appeal to all you people out there who are the volunteering type. Mathsoc requires people *(you)* to fill out the remainder of the executive, therefore the Mathsoc office, MC 3038, would like to receive applications (or just come in and tell us you are interested) for the following positions:

> **Speaker**
> **Social Director**
> **Education Director**
> **Internal Affair Director**
> **Mathletics Directors**
>   (1 male, 1 female)
> **Administrator**

Let's have some *response!*

Gary Prudence (President)
Kevin Willis (Vice-President)

WATSFIC NEWS

The fanzine is into production phase now, as the cover has been sent to Graphics to be printed. The material is being typed and hope-fully will be to the printers by the March 19. We still need good artwork, so get out your black markers and pens. The fanzine will be free to members, and 50¢ to others.

Those who are interested in working at the convention, October 9, should contact Mike Wallis. The work will involve shifts of two hours, with your off time free to roam the con. People are need for security and cash at the door, floor walkers for the art show and the dealers' room, escorts for the speakers, and general gofers to help out alround.

Admission would be free to those involved, with a small remuneration possible if there is any money left over.

████████ was eventually found. ██ the Toronto Bus Depot ██ University of Waterloo is █ Windsor! How is he to know it is in Kitchener? Despite this, we intend to show *Silent Running* on March 22 at 7 and 9 pm in MC 2066. Rag will be going to Toronto on the 19th to pick it up from the distributors, and will bring it back with him to ensure that it is here on time!

Admission to the movie will be lowered to 75¢ for members, $1.00 for students, and $1.50 for others. Don't forget to bring a friend or two, this one is definitely worth seeing!

Mike Wallis, Secretary
March 11, 1976

TROB|BORT

Because the Trob spent until 15.8 chrons on 77/76 answering mail messages, there isn't much of a column this week.

Many people have noticed a reorganization in the Red Room, preparing for new arrivals ... UNIX is up ... So are arpepper and I ... Ludwig von Zopfault does not know who I am ... WATSFIC presents *Silent Running* soon, but I'm not sure when ... assignments are due soon, so there are still 12 ~~people~~ users on TSS (that includes master and two mathNEWSs) ... on with the column ...

This week's COM-PUTER_OF_THE_WEEK is the 3705. The 3705 is the TP controller on VM/370. That makes it the VM equivalent of the Datanet on the Honeywell, controlling access from a large number of terminals.

The 3705 is interesting for two reasons. Firstly, it can run on hardware or software without any significant difference. That is, the program is a copy of the hardware wiring. Secondly, the 3705 can emulate several older IBM TP controllers, simultaneous with normal operation. This means that the CPU can ignore such things as terminal types and speeds, because these are all interfaced through the versatile 3705.

The 3705, which is programmable, can be equipped with up to 256K of memory. A new version, with monolithic (semiconductor) memory, instead of core, is now available.

Waterloo Dizzy Studios

presents

A thrilling sequel to
"Godzilla meets the Blob"

JJBT Meets the Trob

Appearing soon at a University near you. Check your newspaper (**mathNEWS**—what else??) for dates, times, and places.

Letters to the Trob

Dear Trob:
In your "3-state life", does 1 and -1 add to give 0?

J. Abbot

Dear J.A.:
Of course! If it didn't, the logic would be hopeless!

Exil Q. Trob

Dear Trob:
For several weeks now I have been variously pushed around, degraded, insulted, and generally blackmailed by a certain nameless Trob, (who shall remain nameless), in an apparent attempt to cajole me into actually writing for this publication.

However, it seems that, although **mathNEWS** freely publishes any and all garbage it receives in its mailbox(es), it retains some form of (random?) discrimination for its articles and therefore cannot see publishing the material I *would* like published.

arpepper

Dear A.R.P.(again!):
We are glad of your assistance, but **mathNEWS** *does* have certain *standards* to maintain........

Exil Q. Trob

Dear Trob:
Ian Macrae did notice your comment about zits in master/userids, reading it aloud and slowly, in my presence! The hacks were debating whether to send you a letter of approval for that comment or not!

I have also received some feedback regarding the statement that the sets of hacks and zits were not necessarily mutually exclusive! For instance, Ciaran said "Mr. Pepper! Your comment about hacks and zits not necessarily being mutually exclusive did not go unnoticed! Everything is being taken into account."

A. R. Pepper

Dear A. R. Pepper:
All I can say is, "If the shoe fits, wear it!!"

Exil Q. Trob

Dear Trob:
After trying out "A Trob's Life" (You were not the first!) one notes that it adds nothing special to Life, but only makes it worse. As long as the pattern is all of one state, it acts as a normal Life pattern, but if the states are different, it acts only to cause the pattern to pass away or at least to separate the different states.

As an example: The following collision in life would create a block:

Here it would only form a glider and a block, by not even interacting! A "trobble" glider cannot even touch a still life of the opposite state and thereby make the glider and its interactions quite worthless! Enough said of that.

Just a small correction: r-pentominos do not grow without end, but settle down in 1103 generations to 6 gliders, 8 blocks, 4 blinkers, 4 beehives, 1 boat, 1 ship, and 1 burloaf!! The adder is **230 × 260**, and Von Neumann discovered a self-replicating pattern in a space using different rules from Life.

Most Life discoveries of any importance that are made are interestingly more than 10 bits as a few of the below will suffice to show:

This is one of the few period 6 oscillators.

This reflects the spaceship off the eater at a 90° angle to yield a smaller spaceship!!
I hope that this clears up some of your misconceptions about life.

DJBURLOAF
Resident Lifexpert.

Dear DJB:
Thank you for the additional information. A friend told me that r-pentominoes run infinitely, but he could only afford to run the program to 200 generations.

I am sorry that you feel so opposed to negative Life. I hope to (next week...) publish some patterns where the positive/negative interaction does give interesting results.

Exil Q. Trob

We shall go on to the end, we shall fight in France, we shall fight on the seas and oceans, we shall fight with growing confidence and growing strength in the air, we shall defend our Island, whatever the cost may be, we shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills; we shall never surrender, and even if, which I do not for a moment believe, this Island or a large part of it were subjugated and starving, then our Empire beyond the seas, armed and guarded by the British Fleet, would carry on the struggle, until, in God's good time, the New World, with all its power and might, steps forth to the rescue and the liberation of the

BURLOAF

Last week, the Trob published a featurette on Life (,the game of). I would like to add a few comments to what he has said. First, I hate to remove the glory from the Trob, but he is not the inventor of three-state Life. In fact, a form of three-state Life has been around for quite a while. This version of Life is referred to as "Immigration" (for an unimportant reason). It is not like Trob's Life however. Immigration has one dead state and two live states, which can be thought of as a single live state which can be one of two colors. Patterns grow the same way they do in Life, except that when a cell is born, the color of the cell is determined by the color of the majority of the three parents. There is also a five-state version of Immigration in which a living cell can be one of four colors. Here, childen are the same color as the majority color of the parents, unless the three parents are three different colors, in which case the child is the fourth color.

I don't think the Trob's Life has enough charm that it will replace Conway's original version. Conway's rules derive part of their beauty from the way patterns don't proliferate excessively but don't vanish too much and from the existence of all sorts of nifty objects such as Spaceships, Oscillators, Glider Guns and Burloafs. However, most of the beauty comes from the way all these nice things come about in an environment defined with such simple rules.

This is not to say that the Trob's Life is not without its strong points. In ordinary Life, there are 29 ways a Glider can smash into a Burloaf, all of which destroy the original Burloaf and only 3 of which leave a Burloaf. However, if we make the Burloaf from 1's and the Glider from -1's, not one of the possible 29 ways in which we can shoot the Glider gives a collision that does any damage to our Burloaf. The Glider either zips by the Burloaf unscathed, is annhilated, or is turned into a harmless block without so much as a scratch on the Burloaf. In fact, we can fire whole arsenals of Gliders at our Burloaf with no damage whatsoever to it. Not only that, the Burloaf is immune to any form of Spaceship that can be fired at it (there are 3 forms).

This property of extreme resiliency is not that common either. Other objects I tried smashing Gliders into are destroyed in a majority of cases. This shows the true nobility of the Burloaf. Yes, the Burloaf is more r just a pattern that sits there looking stupid. It is different from all those other patterns that sit there looking stupid that are not the same as the Burloaf.

I heard a story last week that a big shot from the Canadian armed forces was here last week. They were about to allocate $100,000 to build a modern obstacle course designed to give soldiers a thorough test of their abilities and to tax their resources to the limit. However, after being shown Columbia Field one warm day last week, the plans were scrapped. The Forces official, when asked for a comment, said:

"Why, this is an excellent place to have our men work their way through! It makes our planned course look like child's play."

This week's INTEGER_OF_THE_WEEK is:

29

29 is chosen because it is the number of distinct ways in which a glider can smash into a Burloaf (see above) (and if using Trob's rules for Life, the number of ways it leaves the Burloaf untouched). 29 breaks down into 1 (for the one Burloaf that resists all 29 gliders) + 4 (for the four directions from which gliders may approach) $\times$ 7 (for the number of bits in the Burloaf).
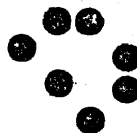
One of our faculty members recently received a letter from the Computer Science department at Yale. The message beside the postage-meter mark read:

SUPPORT COMPUTER SCIENCE
Every little bit counts!

Dear Burloaf,
I would like to have an article published in opposition to Mantis Bacon's letter in that Trobblemaker's article about how a Burloaf is "eaten" by an Eater! He is totally mistaken. The Burloaf does not get overpowered by a mere Eater and eaten! The Burloaf, being far nobler than the Eater, could step on the Eater just like that. However, our hero humbly realizes his own worth and in order to make a fellow pattern look better, he allows himself to be eaten, but just to make sure the Eater is worthy of this honor the Burloaf holds out, making the Eater take three tries at destroying him, before he graciously gives up!!!

S.P.S.A.B.
Society for the Prevention of
Slander Against Burloafs

Dear S.P.S.A.B:
I can understand your concern with this misrepresentation of the Burloaf and sympathize completely. Hopfully, in the future, these demeaning statements can be kept to a minimum.


Dear Answer Burloaf,
You were much too harsh on the poor 1-jineer who wrote you about there not being any non-interesting integers. His proof can easily be modified as follows.

Using his proof, you can show that there is no smallest non-interesting *non-negative* integer (if one exists, there definitely must be a smallest). Similarly, you can show that there is no largest non-interesting negative integer. Thus, since all non-negative integers are interesting, and *all* negative integerss are interesting, *all* integers must be interesting—*Q.E.D.*

Owen Leibman

Dear Owen:
Yes, your point is well considered. However, you are making the implicit assumption that a number's interestingness is independent of the set in which it is found. You have shown that there is no uninteresting non-negative integer and that there is no uninteresting negative integer. However, suppose we consider the set of all integers. We have shown that there need not exist a smallest uninteresting integer, as there is no smallest element. Therefore we consider the absolute values of the integers. We might say, some uninteresting integer will have the smallest absolute value and therefore it will be interesting. However, if the smallest uninteresting absolute value represents two uninteresting integers, these integers consitiute a collection of integers, and therefore the members of this collection are mundane. Therefore there can still exist uninteresting integers.
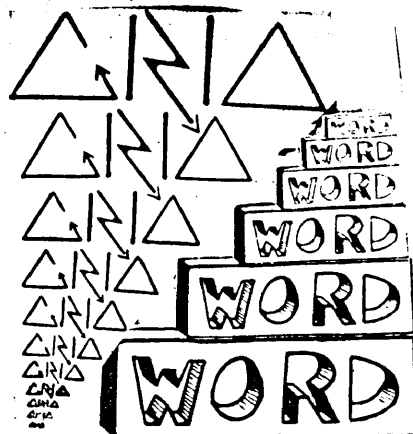
GRIDC☹MMENT

Last week, we had a meager 12 solutions, of which 5 were correct. Our five-sided coin picked:

Dave Bean

as the winner. He may collect his T-shirt by showing up to any **mathNEWS** production meeting, Tuesdays* from 7.917 myth (7:00 p.m.) on in MC 3011. We received a subscriber entry, from **Russell Crook,** but he left one square blank, so he won't receive anything for his effort. This week's *Gridword* is by **Jim Pattison.**

*The one remaining production meeting *this* term will *not* be on a Tuesday. See the note elsewhere in this issue. This also means that the deadline for this gridword is not 7 p.m. on Tuesday, but rather 7 p.m. on Thursday, March 25.
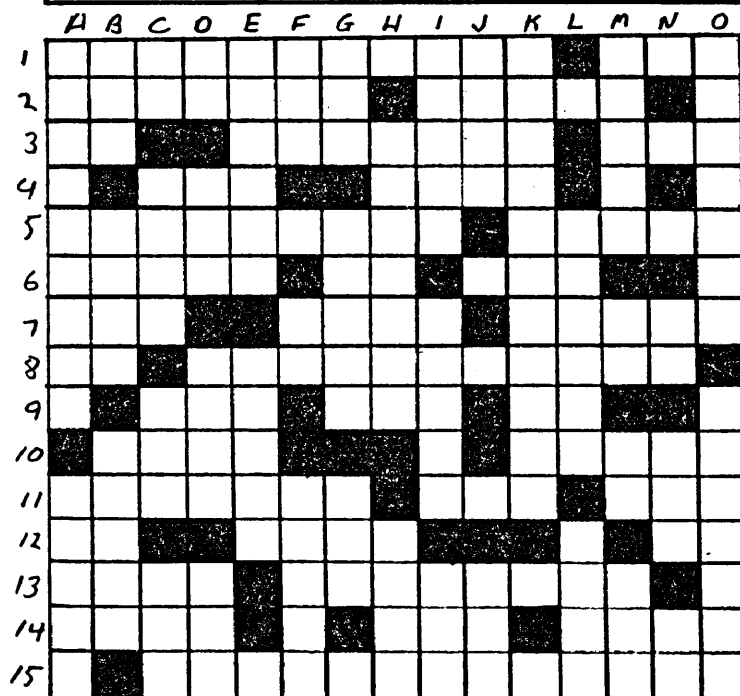
1A night-time occupation of Daily Sentinel publisher
1M time (nadsat)
2A book written by Bilbo, Frodo, Sam
2I overweight
3A initials of a fairly good guitarist
3E what astronauts do on the way home
3M pity, but it's only available in Canada
4C what Dr. Suess's cat was in
4H I can't believe ___ ___ the whole thing (2 words)
5A a Meara
5K word (nadsat)
6A Ian & Sylvia
6G I Guess!
6J Umbrellas Are Essential
7A always around when you don't need them
7F Monday mornings (odd spelling)
7K ladies (French)
8A knockout
8D *alias* Spiderman
9C comes after Willard
9G something done to trees
9K two vowels
10B an exigency
10K an intimate companion
11A a setting of *Dahlgren*
11I one back
11M ___tactoe
12A Chinese coin
12E a small bundle of straw
12N initials of 26th U. S. President
13A according to Queen, a type of battle
13F handkerchief (Nadsat)
14A American state
14H if the Rolling Stones played the Campus Centre Pub, crowds might be this
14L a saw cut
15C Kubrick's first movie (4 words)

A1 Tarzan
A11 Vic was A Boy And His Dog was called ___
B1 room usually in basement
B5 needle
B10 how a horse says no
C1 first name of a guy who always had a really good show
C4 a spindle
C9 a metric unit, used to express ratios of power
C13 to diesncumber
D1 initials of Animals lead singer
D4 there was much of this about nothing
D8 part of a banana
D13 Every Other Answer
E1 commander of *Endeavour* (Rendezous with Rama)
E8 what rich fathers do when their daughters get married
F1 garden tool
F7 type of express
F11 dragster fuel
G1 Turkish weight (= 2¾ lb.)
G5 line forming an outline
G11 camera setting
H3 Canada-U.S. border region
H12 hey you!
I1 good reason to buy books (2 words)
I7 one a day...
I13 Prince Charles
J1 plant with edible root (anagram)
J13 part of the foot
K1 maiden name of James Bond's wife
L5 one that leaks?
L12 Thor's half-brother
M1 type of rocket
M7 I
M10 overtime
M13 small barrel
N7 comparative suffix
N10 type of picker
N14 Right Here
O1 ardent in the pursuit of an object
O9 Watson's companion's brother's first name

DESCRIPTOR-BLOCK · · · · · · ·

CREATED BY: JIM PATTISON
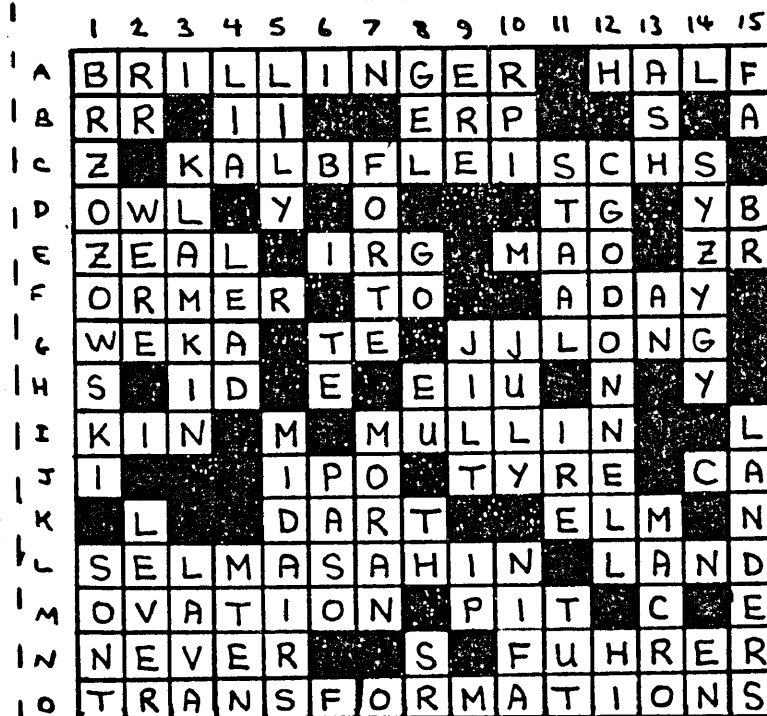
Le Bourgeois Gentilhomomorphisme
[or: Math329a Lecture Notes]

For many years mathematical groups were quite contented. True, there were and still are many of them, but they did not bother each other. Although their memberships tend to differ, most groups are essentially alike. They are closed societies, whose members tend to associate mainly among themselves. Despite the wide variety of members in most groups there is always one who manages to remain neutral in the face of group actions. His identity is never a secret within the group. It doesn't matter how the group tries to use him to act on another member, he will not influence the latter. Yet for any member of one of these groups there must be some other member (unless he is neutral himself) who will neutralize him. In general the groups are sedentary by nature but there are those which are abel [sic] to commute.

These groups have no ideals. They were content in their existence, not hurting anyone.

Then it came. The anarchistic, fascist, reactionary, bourgeois homomorphism! This despicable, fascist non-person appeared solely to corrupt this placid society. The bourgeois homomorphism makes changes for the sake of making changes, at the expense of the groups.

What fascist, imperialist action does this unspeakable entity perpetrate on the poor, defenseless, proletarian groups? It takes members of the group and throws them all over the map. It tries to annihilate the very structure of the group by replacing it by nothing. But, as history has shown, the anarchists are doomed to failure. The bourgeoisie will be overthrown.

Even now the movement has begun. The spewed-out groups attacked so viciously by the fascist homomorphism have regrouped. In fact, despite all the efforts of the homomorphism to create a state of anarchy, the members of the group have been saved. Our neutral friend remains neutral and members still have the same neutralizers. The group still does exist although with a new identity. The group is closed still, allowing only those attacked by the fascism of the homomorphism.

The beast can be repelled! Order will be preserved!

Marlene Erbb
Renegade College

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mathNEWS welcomes your criticisms, comments, suggestions, etc. All letters should be signed, but if requested, a pen name will be used. Put your **Feedback** articles in our *mailbox* on the third floor outside the lounge, or mail it to us on TSS to userid **mathNEWS**, or take it to MC 3038 and have it put in our mail slot, or put it in the mail addressed to **mathNEWS**, MC 3038.

What?

FREE FORM(36-24-36)
WRITING(ping,ling)*

This is an attempt to write(*wrong*) about the art(*exhibition*) of word-association(*football*). Many people are always thinking(*George V*) quite (*a,b,c,d*)effectively in this (*la*)mode without even realizing that they are doing it(*stop laffing about, you silly git*). The ability to be able(*baker,charley*) to(*too,two*) let your thinking roam wild(*African*) is a definite asset(*a matched pair*). It(*my 'ead on the table*) helps in freedom of (*Hamilton-Burlington*)expression. As you can plainly (*Red*)see, my thoughts(*so, but you wouldn't believe me*) are never(*say die*) restricted to the sole(*fillet*) topic(*bottom*) upon which(*who,where,what,why?*) I am supposed(*in the nude*) to(*deux*) be(*sting/honey*) writing.

However(*and ever and ever and ever.....*), there(*where?*) are(*s/t/u/v*) definite(*i can't hear you*) drawbacks(*'cause I'm no good at fronts*). Words tend(*er*) to slip(*pery*) into the conversation too(*t*) easily(*Marvin*) (*within*)without(*about*) any conscious(*and them*) recognition(*the light of day*) of the fact(*or fiction section of the Hamilton Public Library*). Then people think(*tank*) you(*hoo*) need to(2) (*Black*)see a doctor(*Christian Barnard the famous heart specialist at the uh, the uh, psycho hospital for loonies like me*) when you're just(*in the nick of time*) being creative(*got a terrible 'eadache doctor*).

This signifies the(*it/him/her/they/you/us*) (*rear*)end of a beginning and(*Sir Edward, get stuffed*) the beginning of the end(*thanks, I've enjoyed it*). But what would(*craftsmen*) that possibly mean(*variance*) to(*zwei,duo*) such a bunch(*of grapes*) as those that read(*write/arithmetic*) National Observer(*peeping Tom's magazine*)? And where(*piece*) is the(*thee/thine/thou*) ambiguity? Over there, in a box(*girder bridges*). Day is done(*you certainly have been*), the song(*of the decade*) is over(*easy*), thought I'd something more to(*oddloo*) say(*vour the flavour*). Logical disconnect...

The maximal strongly-connected sub-
Drogon
(HGAcolquhoun)

*original idea taken from a discourse by Monty Python(blessed be the name)

Graphic Services Graphic Services Graphic Services

In response to **mathNEWS** "Sound Off" column re difficulty in reproducing blue images (handwritten notes, ditto copies, etc.,) on the EMS and Arts Library Xerox copiers:

The Xerox copiers replaced the Savin equipment in response to the many complaints from students for:

- plain paper copies for adding notes

- faster copying to eliminate line-ups

- improved image quality

- less equipment breakdowns

- eliminate copies sticking together

- easier binding or filing

- less machine maintenance

To alleviate the problem in reproducing blue images on the Xerox copiers, it is suggested that notes produced on the "ditto" spirit duplicator be reproduced in black. This can be accomplished by ordering black spirit masters from Stationery and using black ballpoint pens. Also I have instructed Xerox to adjust the copiers to reproduce most poor quality blue originals without reducing copy quality from good originals. A copy is a copy—not an identical twin of the original. Xerox coin copiers are the best available. If you want to discuss it further, please give a shout.

J. W. Hammond
Manager, Graphic Services.

4-colour theory tested on walls

Painters have been at work on the fifth floor of the math building, redoing walls with bright graphics and colour-coded arrows. A staff member collected these comments from passers-by last week:

"Getting lots of bright colours around, eh?"

"They can't be direction arrows, or they would have people going around in circles."

"They talk about not wasting money, but look at all these stupid colours they are painting on."

"I told my friends I live at the intersection of the large yellow and green."

"I really think the graph theory people are wrong. You simply cannot 4-colour this floor."

"The back entrance to the lounge is in the middle of the 'baby blue' hall."

"These reds bother me. I wouldn't mind if they made the whole wall red, though."

"I see it. I'm not blind! Big red arrows and horseshit like that all over the place."

"Look! They've gone MOD!"

— GAZETTE

...and Graphic S   ces

Dear **mathNEWS**,

I regret to inform you that I received only .875 of **mathNEWS** issue A.6: that is to say, page 4 was blank. While there exists the possibility that the Graphic Services department has instituted a policy of leaving random sheets blank, in an effort to save ink, I would like to read the Burloaf column, which was presumably begun on page 4. Therefore, if you could dig up an extra copy (or even Xerox the master) I would really like to see it. You could even send it along with the next issue of **mathNEWS**, and save the postage.

Incidentally, do you know of anyone who wants a ROFF program, written in FORTRAN IV PLUS to run on the PDP-11/45 under RSX-11D V006A? I have written one which I am willing to share. Unfortunately, it only likes upper case.

sincerely [well, fairly sincerely],
Jody Trivers

Which proves that at least one person out there likes Burloaf! (Unlike Graphic Services, who have on rare occasions skipped a page in a few copies; the missing page is usually Burloaf... or the front page...)

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This is masthead ten point
nine, our tenth and second-
last of the term... issue
ten point ten will be dated
April 0 (the last day of
classes and will be produced
on... see page 5...
```

Logic Lesson

Dear **mathNEWS**,

Suppose we make the following two simple assumptions:

    A) The purpose of locking a door is to keep people out.

    B) The purpose of unlocking a door is to let people in.

Yet consider the entrances to The Building. Note how most of them are kept locked at certain hours, while others are always open. The effect of this is that:

    C) There are locked doors that do not keep people out.

Intuitively, **A** and **C** seem to contradict, yet they are both apparently true. The pitfall here is that we tend to make a certain implicit assumption without realizing it, which should be stated:

    D) The Management of The Building locks doors for a purpose.

One can immediately see that negating this last statement eliminates the contradiction. A second way to make sense out of this is to continue to assert **D**, but modify **A** to read as follows:

    A) The purpose of locking a door is to inconvenience people by forcing them to go out of their way to find one that is unlocked.

There are probably a number of other approaches by which the contradiction may be resolved, but these two seem to me to be the most likely.

D. M. Canzi