


## hello...

...and welcome to another term of mathNEWS (rather ill-named, this, since we have very little news and even less math, but anyway...) We shall endeavour to publish this mighty Rag at approximately bi-weekly intervals this term; but we, the dedicated, loyal (insert several laudatory adjectives here) staff cannot publish

anything without some help from you people out there. Any suggestions, articles, graphics, comments, criticisms (constructive!), etc., can be placed in the box labelled "MATHNEWS" located in the third floor foyer, or sent to userid "mathnews" (on the Honeywell) or "dwtill" (on QMS). Hope to hear from you!

Volume 28 Number 1 Friday, January 29, 1982.



# mathNEWS

## Math soc Nominations

Nominations for President, Vice-President, Treasurer and multiple class reps are open until Thursday February 4 1982. Elections will be held February 18 if needed. Nomination forms and information are available at the MathSoc office.

## Drop Deadline

The deadline for dropping courses and/or withdrawing without academic penalty is February 12, 1982. Don't forget!

## SEMI-FORMAL

You are cordially invited to the Math and Science Valentine Semi-Formal, to be held Saturday, February 13, 1982 at Bingeman Park in Kitchener starting at 7:00 p.m. Admission charge: couples, \$25; singles, \$15. Tickets are available at MathSoc (it's open now during the day!), SciSoc, and the SciSoc C & D stand.



## WANTED:

Bowlers For Big Brothers!

Anyone interested in playing on the Math team in the Big Brothers' Bowl-A-Thon (to be held between February 6 and February 13), please sign up at the mathSoc office before Monday, February 1st (the sign-up sheet is on the desk).

## Lounge Survey!

Re the fate of the pinball machines in the lounge:

Do you want them to remain? ( )

Do you wish them removed? ( )

Are you indifferent? ( )

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please drop this into either the mathNEWS box on the third floor or the MathSoc office (also on the third floor). One thousand thank-yous!

## GRADUATING?

(This term that is)

Ever wonder how they figure out when you've got your degree? Well, it's not by magic- you have to fill out a form from the Registrar's office informing them that you wish to graduate at the end of this term. These forms must be handed in by March 1st if you wish to graduate at the Spring Convocation ( which for Math is May 29th)



## grad photos

Grad photos will be taken from February 8th to February 26th by Forde Studios. Come to MATHSoc next week to sign up and for further information.

## The Uses Of Fallacy

by Paul V. Dunmore

Originally published in "New Zealand Mathematics Magazine" 7,15 (1970).

In the last hundred years or so, mathematics has undergone a tremendous growth in size and complexity and subtlety. This growth has given rise to a demand for more flexible methods of proving theorems than the laborious, difficult, pedantic, "rigorous" methods previously in favour. This demand had been met by what is now a well-developed branch of mathematics known as Generalized Logic. I don't want to develop the theory of Generalized Logic in detail, but I must introduce some necessary terms. In Classical Logic, a Theorem consists of a True Statement for which there exists a Classical Proof. In Generalized Logic, we relax both of these restrictions: a Generalized Theorem consists of a Statement for which there exists a Generalized Proof. I think that the meaning of these terms should be sufficiently clear without the need for elaborate definitions.

The applications of Generalized Proofs will be obvious. Professional authors of textbooks use them freely, especially when proving mathematical results in Physics texts. Teachers and lecturers find that the use of Generalized Proofs enables them to make complex ideas readily accessible to students at an elementary level (without the necessity for the tutor to understand them himself). Research workers in a hurry to claim priority for a new result, or who lack the time and inclination to be pedantic, find Generalized Proofs useful in writing papers. In this application, Generalized Proofs have the further advantage that the result is not required to be true, thus eliminating a tiresome (and now superfluous) restriction on the growth of mathematics.

I want now to consider some of the proof techniques which Generalized Logic has made available. I will be concerned mostly with the ways in which these methods can be applied in lecture courses - they require only trivial modifications to be used in textbooks and research papers.

The "reductio" methods are particularly worthy of note. There are, as everyone knows, two "reductio" methods available: "reductio ad nauseam" and "reductio ad erratum". Both methods begin in the same way: the mathematician denies the result he is trying to prove, and writes down all the consequences of this denial that he can think of. The methods are most effective if these consequences are written down at random, preferably in odd vacant corners of the blackboard.

Although the methods begin in the same way, their aims are completely different. In "reductio ad nauseam" the lecturer's aim is to get everyone in the class asleep and not taking notes. (The latter is a much stronger condition.) The lecturer then has only to clean the blackboard and announce, "Thus we arrive at a contradiction, and the result is established". There is no need to shout this - it is the signal for which everyone's subconscious has been waiting. The entire class will awaken, stretch, and decide to get the last part of the proof from someone else. If everyone had stopped taking notes, therefore, there is no "someone else", and the result is established.

In "reductio ad erratum" the aim is more subtle. If the working is complicated and pointless enough, an error is bound to occur.

The first few such mistakes may well be picked up by an attentive class, but sooner or later one will get through. For a while, this error will lie dormant, buried deep in the working, but eventually it will come to the surface and announce its presence by contradicting something which has gone before. The theorem is then proved.

It should be noted that in "reductio ad erratum" the lecturer need not be aware of this random error or of the use he has made of it. The best practitioners of this method can produce deep and subtle errors within two or three lines and surface them within minutes, all by an instinctive process of which they are never aware. The subconscious artistry displayed by a really virtuoso master to a connoisseur who knows what to look for can be breathtaking.

There is a whole class of methods which can be applied when a lecturer can get from his premisses P to a statement A, and from another statement B to the desired conclusion C, but he cannot bridge the gap from A to B. A number of techniques are available to the aggressive lecturer in this emergency. He can write down A, and without any hesitation put "therefore B". If the theorem is dull enough, it is unlikely that anyone will question the "therefore". This is the method of Proof by Omission, and is remarkably easy to get away with (sorry, "remarkably easy to apply with success").

Alternatively, there is the Proof by Misdirection, where some statement that looks rather like "A, therefore B" is proved. A good bet is to prove the converse "B, therefore A": this will always satisfy a first-year class. The Proof by Misdirection has a countably infinite analogue, if the lecturer is not pressed for time, in the method of Proof by Convergent Irrelevancies.

Proof by Definition can sometimes be used: the lecturer defines a set S of whatever entities he is considering for which B is true, and announces that in future he will be concerned only with members of S. Even an Honours class will probably take this at face value, without enquiring whether the set S might not be empty.

Proof by Assertion is unanswerable. If some vague waffle about why B is true does not satisfy the class, the lecturer simply says, "This point should be intuitively obvious. I've explained it as clearly as I can. If you still cannot see it, you will just have to think very carefully about it yourselves, and then you will see how trivial and obvious it is."

The hallmark of a Proof by Admission of Ignorance is the statement, "None of the textbooks makes this point clear. The result is certainly true, but I don't know why. We shall just have to accept it as it stands." This otherwise satisfactory method has the potential disadvantage that somebody in the class may know why the result is true (or, worse, know why it is false) and be prepared to say so.

A Proof by Non-Existent Reference will silence all but the most determined troublemaker. "You will find a proof of this given in Copson on page 445", which is in the middle of the index. An important variant of this technique can be used by lecturers in pairs. Dr. Jones assumes a result which Professor Smith will be proving later in the year - but Professor Smith, finding himself short of time, omits that theorem, since the class has already done it with Dr. Jones...

Proof by Physical Reasoning provides uniqueness theorems for many difficult systems of dif-

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ferential equations, but it has other important applications besides. The cosine formula for a triangle, for example, can be obtained by considering the equilibrium of a mechanical system. (Physicists then reverse the procedure, obtaining the conditions for equilibrium of the system from the cosine rule rather than from experiment.)

The ultimate and irrefutable standby, of course, is the self-explanatory technique of Proof by Assignment. In a textbook, this can be recognized by the typical expressions "It can readily be shown that..." or "We leave as a trivial exercise for the reader the proof that..." (The words "readily" and "trivial" are an essential part of the technique.)

An obvious and fruitful ploy when confronted with the difficult problem of showing that B follows from A is the Delayed Lemma. "We assert as a lemma, the proof of which we postpone...". This is by no means idle procrastination: there are two possible denouements. In the first place, the lemma may actually be proved later on, using the original theorem in the argument. This Proof by Circular Cross-Reference has an obvious inductive generalization to chains of three or more theorems, and some very elegant results arise when this chain of interdependent theorems becomes infinite.

The other possible fate of a Delayed Lemma is the Proof by Infinite Neglect, in which the lecture course terminates before the lemma has been proved. The lemma, and the theorem of which it is a part, will naturally be assumed without comment in future courses.

A very subtle method of proving a theorem is the method of Proof by Osmosis. Here the theorem is never stated, and no hint of its proof is given, but by the end of the course it is tacitly assumed to be known. The theorem floats about in the air during the entire course and the mechanism by which the class absorbs it is the well-known biological phenomenon of osmosis.

A method of proof which is regrettably little used in undergraduate mathematics is the Proof by Aesthetics ("This result is too beautiful to be false"). Physicists will be aware that Dirac uses this method to establish the validity of several of his theories, the evidence for which is otherwise fairly slender.

His remark "It is more important to have beauty in one's equations than to have them fit experiment" has achieved a certain fame.

I want to discuss finally the Proof by Oral Tradition. This method gives rise to the celebrated Folk Theorems, of which Fermat's Last Theorem is an imperfect example. The classical type exists only as a footnote in a textbook, to the effect that it can be proved (see unpublished notes of the late Professor Green) that... Reference to the late Professor Green's lecture notes reveals that he had never actually seen the proof, but had been assured of its validity in a personal communication, since destroyed, from the great Sir Ernest White. If one could still track it back from here, one would find that Sir Ernest heard of it over coffee one morning from one of his research students, who had seen a proof of the result, in Swedish, in the first issue of a mathematical magazine which never produced a second issue and is not available in the libraries. And so on. Not very surprisingly, it is common for the contents of a Folk Theorem to change dramatically as its history is investigated.

I have made no mention of Special Methods such as division by zero, taking wrong square roots, manipulating divergent series, and so forth. These methods, while very powerful, are adequately described in the standard literature. Nor have I discussed the little-known Fundamental Theorem of All Mathematics, which states that every number is zero (and whose proof will give the interested reader many hours of enjoyment, and excellent practice in the use of the methods outlined above). However, it will have become apparent what riches there are in the study of Generalized Logic, and I appeal to Mathematics Departments to institute formal courses in this discipline. This should be done preferably at undergraduate level, so that those who go teaching with only a Bachelor's degree should be familiar with the subject. It is certain that in the future nobody will be able to claim a mathematical education without a firm grounding in at least the practical applications of Generalized Logic.

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# MATT THE MATHIE

CS 299Q  
Midterm

1. Write a compiler.  
(leave margins blank)



2. Your compiler doesn't work. Why?



(PANIC)



Bonus:

\* 42. Why did the CS guy  
traverse the path?  
To get to the other node.



# THE GALUMPHING GOURMETS

Welcome back.

The Galumphing Gourmets is a group of Math Staffers, Students and friends who occasionally find themselves dining out in the K-W area. Sometimes we even go further afield as a perusal of this article will show. Galumphing usually occurs during the break between terms when Food(?) Services operations on campus are closed. Weekend forays also happen but not with any prescribed frequency. If you are interested in joining our hard core of gourmands, we will be glad to hear from you. Just drop a note to the mathNEWS editor, who will see that it gets to the right place.

We have asked in previous articles for favorite recipes that you would like to share. While the early response was gratifying, the trickle soon dried up. We know you chefs are out there, so let us have your favorite stew or omelette, and we promise to share it with the mathNEWS readership. All submitted recipes will be credited to the submitter unless you ask to remain anonymous.

## Rating System

A rating of one to ten bunnies is given based on three or more visits to the establishment. Partakers in these visits discuss the rating and attempt to arrive at a consensus. In cases of dispute, the decision of the majority prevails. The writer of the column acts as a tie-breaker if needed.

Points that are covered in a rating are ambience, presentation, delectation, consistency and service. The price for two is usually mentioned in the article but has no part in the rating.

In addition to ratings, there is a section of this column headed "Visited Once". There is an implied phrase following this title which you should remember, since we do not plan to emphasize the point. This phrase is "... and never again."

Another feature of this column is the "Previously Rated" section. This is an accumulated precis of articles in previous columns with ratings and date of same.

**Wok with Chan** 160 University West, Waterloo.

The new plaza on University has attracted an interesting Chinese restaurant. Wok with Chan specializes in Szechuan cooking and can be really good. On the other hand, it can be rather poor, too. Recent back to back visits produced two standards of cooking for the same dishes. The first visit produced real hot and sour soup, Muk Shui pork and other things equally good. The soup was nicely thickened and well served. The pancakes served with the pork

were perfect. The next visit was a disaster. The same two dishes were ordered with others. The soup was watery and thin. The pancakes had been trimmed to remove scorched sections. At this point the place is batting about .500.

The service here is very strange indeed. First they fall all over you getting your order and getting things on the table. From then on, expect to be mostly ignored. This is especially true when you want to get your bill and get going. Also, we should mention that if you want plain steamed rice, order it and insist on getting it. It is not on the menu but who ever heard of a Chinese restaurant... On one occasion it was forgotten completely.

The third visit made to Wok with Chan found a new menu, new prices and a new layout. The place is now less crowded and the service is better. Also, the number of items on the menu has been reduced. Prices have gone up about ten per cent.

On the whole, we recommend the place slightly. Try one of the fruit float desserts. Dinner for two will probably be in the neighborhood of \$15. No licence. Mastercard. Take out menu available. 10% discount on pick up orders over \$8.00.

5 Bunnies. January 4, 1982.

## Previously Rated

**The Laurel Room**, South Campus Hall.

An inexpensive buffet on campus run by Food Services. An example of institutional operation at its best. Fixed price of \$4.20 per person for the buffet. \$11.00 a couple with drinks. Lunch Monday to Friday, dinner Wednesday to Friday. Dinner reservations advised. 5 bunnies May 29, 1981.

**Marbles Restaurant**, 8 William Street East, Waterloo.

Behind the Donut Castle (next to Ali Baba's), it is well worth a visit. Recommended are the various hamburgers (can be had rare); featured salads, especially the whole earth and caesar; avocado with crab louis and the quiches. Beer and wine licence. Wide choice of other beverages. Meal for two without drinks \$15.00. Visa, Amex.

7 Bunnies June 12, 1981.

**Mathsoc C+D**, Mathematics Student Lounge, Math and Computer Centre.

Operating Monday through Friday during day class hours, a supplier of coffee, donuts, subs, bunwiches, salads, and soft drinks at a reasonable price.

4 Bunnies June 23, 1981.

**Shantz Country Pork Family Restaurant**, 210 King St. N., Waterloo.

One of the better bargains in the immediate area. Pork specialties at family prices. The



## Of Cabbages and Kings

Editor's Note: The following is the latest in a series of columns written last fall. It was originally meant to be printed last November, but we did not know of its existence until now (despite the fact that it had been resubmitted!). The articles referred to originally appeared in mathNEWS 27:4 and 27:5. We don't take this stuff seriously; neither should you.

Some of you may have noticed the absence of my regular column from the last issue of mathNEWS. No one was more surprised at this than I. This is either due to incompetence on the part of the editor, incompetence on the part of the university mail system, or sabotage on the part of my enemies. I submitted the column you see below through the usual channels, yet it did not appear. In its place was a series of incoherencies written by "djcleibold" under the title "The Life and Times of Grizzly Siastes". I am tired of these foul misuses of my good name and wish they would cease and desist, immediately. If the editor had any spine, he would stop such abuse. I trust it will not happen again.

Meanwhile, you are left with an outdated column, which I am resubmitting through several channels because it is a sterling example of the perils that will befall anyone who lets their guard down for even a second. The reader will no doubt be gratified to learn that I have fully recovered from my travails as described below.

Lying here in bed batting feebly at the keys of my typewriter, I am reminded of Don Marquis' cockroach correspondent, Archy. In his Sun Dial column for the New York Sun, 1916-1922, Marquis maintained that he had left a sheet of paper in his machine one night and a cockroach had typed out a vers libre poem by climbing onto the frame of the machine and jumping down onto one key at a time. Only now do I realize what an incredible amount of energy would need to be stored in that arthropoidal body in order to compose in this fashion. The impacts that produce these very words, performed with the slightest possible motions of my fingers, are scarcely more powerful than Archy's mythical keystrokes, and were I a cockroach, I would never have the strength now to write.

But before I tell you how I came to be in such a state, let me dispose of prior correspondence. Ignoring the incoherencies written last week by some cretin masquerading under the title "A Nonny Moose", I am left with a letter by "David Haynes", who has provided me with the first intelligent response to my writings so far. If more of the student body were like "David Haynes", there would be hope for the doomed world. Nevertheless, I must take exception to certain of his remarks. In a prologue to his missive he implies that I may be plural and female. I should think it obvious from the context of my remarks that I am indeed singular and male. There is only one signature at the bottom of this column (though, clinging precariously to life as I am, it is an open question whether I shall last to the end of this one) and I would not have a male roommate if I were female, even in the depraved atmosphere of the Village. The authorities there may be incompetent beyond belief, but they are not pan-derers.

The other unwarranted assumption is that the entire mathematics student body has united against me. I see no evidence of this. Indeed, I see no evidence that anyone other than a tiny, jealous band of mathNEWS writers and their

stooges are the least bit upset with my remarks. (We shall leave the case of "Steve Reid" out of consideration, as I have reason to doubt that such a person actually exists.) Applying the simplest precepts of mob psychology to the mathematics student body (surely, you will agree, the simplest mob) will convince one that they will never unite over anything short of the quest for alcohol and carnal possession of each other. The engineers are to be admired in this respect alone, for they make no pretensions to having any further aims.

Looking over "David Haynes'" comments, I realize that some people may not have the correct impression of this column. I write it to correct a regrettable imbalance in the theology and geometry of the readers of this paper, and indirectly the far more severe disadvantages of its writers. I do not write it to "attack" people, particularly the poor defenseless souls who inhabit this university. I have never attacked anyone in this column. Occasionally I have defended myself against vitriolic accusations, though perhaps I have been a trifle harsh in using the full force of my wit against those not equipped to respond in kind. But anyone who seeks out this section of the paper to experience vicarious thrills from such defense is a very base character, indeed.

And now the tragic tale of my encounter with Oktoberfest. As you may remember from last week's article, I was under the mistaken impression that it was a celebration of the higher aspects of German culture, an impression fostered by the inscription "NO JEANS PLEASE" on my ticket. I should have suspected something when I was the only one not dressed in those standardizing rags. We drove to the hall in a car belonging to one of my floormates, an obviously unsafe vehicle. I dispelled thoughts of possible exhaust seepage into the cab by reading a few stanzas of Rilke (in translation, of course) out loud, to prepare everyone. Imagine my surprise when we got to the hall - actually an echoing and drafty hockey arena - and discovered it full of noisy, submoric people beating out simple rhythms with hands and glasses to the sound of a brass band in one corner. At first, I thought that the band was tuning up, but when the cacophony continued unabated for several minutes, I realized that the people flinging themselves about on the dance floor were not labouring under a misapprehension, after all. The band was attempting to render a devolved form of German folk music. Clearly, I had inadvertently come across an attempt to render some of the baser themes in German culture.

This was a pity, as I had been looking forward to hearing some Wagner. The Nazis may have been racists and murderers, but at least they had the sense to recognize the genius of Richard Wagner. Since I was several miles from the university, I decided to make the best of it and collect information for my thesis on the common man. My floormates insisted on buying little felt hats, which everyone seemed to be sporting. Of course, they were charging exorbitant prices, and I got into an altercation with the salesgirl over the feather she picked out for me, which was scraggly and bent. It did not help that any conversation had to be carried on at ear-splitting volume due to the extreme noise level. Fortunately, I have a resounding voice. We gained access with our tickets and took up positions at a table covered with a paper tablecloth.

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As a reenactment of Germanic ritual, it was sadly lacking. I have already mentioned the music. The waltz had been replaced by that most mindless of dances, the polka, and even then the dancers were doing their best to warp this almost contentless form into the freestyle gyrations common among "Punk Rockers". The high points of the food were "Oktoberfest sausage" (casings stuffed with rodent droppings, insect fragments, and the occasional bit of gristle) and "Wiener Schnitzel" (breaded pork soaked in meat tenderizer and fried to the consistency of buffalo skin), courtesy of those purveyors of diseased meat, Schneider's. I had been looking to a good Spatburgunder or Auslese, but there was no wine to speak of, only the usual assortment of cheap spirits and draught beer, which had that same mass-produced taste common to most North American brews. Normally I do not drink beer, as it tends to make one bloat, but this liquid was so watered down I felt sure it could do my system no harm. To my surprise, several of the women that my floormates had procured asked me to dance. Their escorts were not paying much attention to them, which was amazing considering in what lurid detail they described what they would do to a female if they ever got within three feet of one. I took pity on them - no doubt it was the first time someone had treated them as other than trollops - and agreed, though I warned them that my dancing skills were not tuned to the butchered tempos of such an incompetent band. It was child's play to affect the simple two-step that was their only knowledge of structured dance, and they complimented me on my skill.

I thought that my floormates might be upset at my popularity with the women. But they were not. I suppose academic pressures had driven all memories of their earlier hostility from their heads. They were quite friendly, buying me pitchers of beer and encouraging me to discourse on German culture. Some of the more ardent German nationalists within earshot took offense to my accurate appraisals, but rather than debate they preferred to move away and sulk. It struck me then that among the older people present there were probably more than a few who keep framed pictures of Hitler in their closets. The mindless monotony and enforced frivolity offered by Oktoberfest are precisely those qualities exploited by the Nazis to gain power. It is no coincidence that the crowd consisted mostly of factory workers and high-school children.

Between dancing and lecturing, I was kept quite busy. Sometime after midnight, I was telling them about Nietzsche's *Übermensch* - most were quite attentive, though a few of the smaller girls had begun to pass out from alcohol poisoning - when the bandleader (if such a term may be applied to such a disorganized group) interrupted for what seemed like the thousandth time with some inane encouragement to the crowd to continue their idiocies. I could take it no more. I strode to the podium.

It was difficult keeping a footing on the rug covering the platform - I suspect some of the worse players were tugging at it to disrupt me - but I started dressing down the crowd for making such public fools of themselves. I could sense they were starting to see the error of their ways when the room spun about me and I lost consciousness.

I awoke the next morning in an alley in Kit-chener. My clothes were ruined and my Swiss watch had been stolen. The only explanation I can come up with is that the jealous bandleader had pulled the rug right out from under me, causing me to lose balance and strike my head on the floor. That alone would have only rendered me unconscious for at most a few minutes, so he

must have also administered some sort of depressant intravenously, no doubt with the willing compliance of the police who were also ignoring numerous liquor-law violations that night.

I hobbled home. My floormates insisted that I had fallen off the podium and raced out of the building shouting about Zarathustra one step ahead of the pursuing police. I had not even the strength to chide them for attempting such an obvious fabrication. Before collapsing into my bed, perhaps never to rise again, I put on Mahler's *Song of the Earth*, fifth movement (another good German composer). The tenor's words have never sounded so ironic:

Was geht mich denn der Frühling an?  
Last mich betrunken sein!

E. Siastes

## Galumphing Gourmets

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boneless pork chop is good with the saurkraut. Good fries, but the mashed are overprocessed. Ham steak, sausages, pork burger are also good. Dessert portions tend to be small. Pastries are not recommended. Open for breakfast. \$4.00 - \$5.00 per person. Unlicensed, cash and carry. 5 Bunnies July 28, 1981.

The Knotty Pine, King St. N., Waterloo. (opposite Conestoga College).

An incomplete (as yet) clone of the Preston operation, a rather expensive place, but good. Licensed, major credit cards. Dinner for two between \$10 and \$30. 7 Bunnies September 24, 1981.

The Cedars of Lebanon, 112 King Street W, Kit-chener.

This is a specialty restaurant offering middle eastern cuisine in an appropriate atmosphere. Chicken, Lamb and Beef skewers are very good, as is the Mezza.

Mezza is a collection of appetizer dishes that go together to make a rather full meal. Mezza served in the upstairs room contains just the selection of appetizers listed. In the downstairs Mediterranean Lounge, a single skewer of your choice is included at a higher price.

Some steak and fish dishes are also offered for the timid.

The Mediterranean room is open on Thursday, Friday and Saturday only, and belly dancers are provided from about 2000. Reservations for this room are required.

Dinner for two upstairs will easily be \$25. Downstairs, with entertainment, the Mezza for two is \$29.95. Bar is extra, of course. Licensed, major credit cards. 7 Bunnies October 8, 1981.

Kwongchow Tavern, 126 Elizabeth St., Toronto.

As the name implies, this restaurant specializes in Cantonese dishes. One of the better Chinese eateries in Toronto, one can find many dishes, ranging from egg rolls to eight precious pearl duck. Good desserts. Dinner for 4 a la carte \$50. Licensed, major cards. 6 Bunnies. October 26, 1981.

Visited Once

The Texas Steakhouse, Waterloo Square.  
McGinnis Landing, University Plaza. (Twice actually, but...)

jcwinterton et al



# feedback

Friday, January 29, 1982 mathNEWS 7

Dear Editor

I am writing to you on behalf of a group of people presently running for three elected positions in the Math Society. I hope, by writing this letter, to inform Math students and the rest of the university community regarding the present state of affairs in MathSoc. Since Steve (CAPS) Lightstone, Joe Geremia, and I first decided to run for President, Treasurer, and Vice-President of the Math Society, last winter, we have had ample opportunity to observe the actions of the present MathSoc and decide on the course of action we would take, if elected.

The major problem with which we are confronted is the lack of enthusiasm and responsibility shown by the members of the present MathSoc council, the body responsible for holding MathSoc elections this term. On our workterm, this past fall, Steve and I contacted the erstwhile President of MathSoc, Andrew Welch, who was also on workterm, to determine the procedure we should follow if we wished to run for any of the elected positions this winter. Andrew informed us that the MathSoc constitution was in the process of being rewritten and that the new constitution would have to be ratified by both co-op and regular students. In a nutshell, the new constitution will allow both regular and co-op students to participate in MathSoc together, and will ensure that no council member will hold a position while on a work term.

Now the story begins to get confusing. Andrew attempted to get the new constitution ratified by the fall stream by holding a self-ballot referendum. The rest of the council, led by Ying Lam, who was Vice-President, decided to hold a meeting while Andrew was in Toronto. At this meeting, a motion was passed declaring the referendum null and void. Meanwhile Andrew was advising us that elections would take place between January 25 and 27 and if we won, we could begin our term in office on January 28. We immediately began drawing up plans and gaining support from our co-op friends, believing we could win the election with our strong following, considering the fact that past MathSoc elections had seen as few as twenty or twenty-five voters.

Upon returning to campus, we were informed by Al Bechamp, Treasurer of MathSoc, that no election could take place in January because the new constitution did not officially exist. Even after being told of this, Andrew reiterated his view that an election could be held in late January. We then continued drawing up our plans (which included a "meet the new executive" wine and cheese party on January 28!) After not hearing from Andrew for a week we were informed by Bechamp that Andrew had resigned and that he, Bechamp, was now in charge. He informed us that he would begin the election process as soon as quorum could be reached at a MathSoc meeting. Three 'meetings' had already taken place in

## Broomball

Anyone wishing to play broomball for the Math team can show up at one of our games. Games are played every Thursday night at midnight at McCormick Arena.

Anyone wishing to play and lacking transportation should meet at MathSoc at 11:30 PM. Everyone is welcome (especially girls; this is a co-ed team).

which quorum had not been reached. Al then declared that he would not requisition funds for the wine and cheese party, which we had hoped could proceed as a means of showing Math students that we were trying to get our plans underway. In the end, Steve convinced Wim Simonis, President of the Federation of Students, to have the Feds sponsor the first Math wine and cheese party this term.

In closing, I appeal to all Math students, urging you to come out and support the "NEW" MathSoc if and when elections do take place. We especially hope to reach first and second year students because they still have a few years left in the Math Faculty, years which we hope to make much more eventful than their first years have been. So, once again I urge all Math students to keep watching for posters and banners put up by the "NEW" MathSoc and come out and support us, because it is your MathSoc, your Math Faculty, and your reputation as a Math student that we hope to improve!

Sincerely,  
Steve Wolfe

## The Warriors Band

The Warriors Band had an important meeting on Tuesday evening, discussing numerous subjects which will without doubt affect the image of the Warriors Band. This has been the first meeting of any importance this term, and there was a very promising turnout, including Steve Hayman, CCWB emeritus (he graduated, in case you wondered what happened to him).

There are probably people around who do not know what a Warriors Band is. It is not, as is commonly thought, a group of primitive tribesmen. This is a group of people with the ability to play musical instruments, with talent ranging from lacking to exceptional. Our function is to inspire the people who turn out at Waterloo's games (mainly hockey, basketball, and football) with enthusiasm. New members are always welcome, especially if you have your own instrument or can play with any reasonable talent. (To find out about it, mail a message to kmureski or war.band on the Honeywell, or leave a message in MathSoc. Our next game will be tomorrow night at 8:00 p.m.)

Starting next week, the Warriors Band will have weekly informal practices from 6:00 until 7:00 p.m. in the Great Hall, Village 1. We hope to get as many people out to these practices, and to the games, as possible. Also, one other thing that the Band needs is Participation! By this, I mean help from the spectators at these various sports. Our duty is to try to inspire spirit into people; we need your response. For example, a recent entry to our repertoire of music is the 'Alternate School Song', also known as 'Waterloo, Waterloo'. This is the song where we actually sing! Our ultimate aim is to have spectators joining in singing the song, but it seems people don't know the words, or are reluctant to sing. For your benefit, the words are printed below; we hope people will memorise them, and then sing them with the Band.

Only one thing needs to be remembered about the Warriors Band: our object is to get as much enjoyment out of playing, and hopefully we can get the crowds to be active participants at sports events.

Sorry, James - the words  
are NOT printed below!

jhputtick

International Film Series:

British Humour Coming  
To Humanities Theatre

"Pleasure At Her Majesty's", a film featuring some of the most well-known British television comedians in live performance, will be screened in the Humanities Theatre on Thursday, February 11. Appearing in this film are Monty Python's Flying Circus (except Eric Idle -ed), Peter Cook of "Beyond the Fringe", the Goodies, and others.

The short subject is "Werner Herzog Eats His Shoe", featuring the world famous German film director (and gourmet!) (no, we don't make these up!)

Show time is 8 p.m.; admission is \$2.00 (students and seniors \$1.50), plus a 50 cent one-night membership. Available at the door.

UW Arts Centre News

Cabaret!

The Broadway award-winning musical, "Cabaret", is being presented until Saturday, January 30 in the Theatre of the Arts. Show time is 8:00 p.m.; admission is \$5.50 (\$4.50 for Feds), and tickets are available from the UW Arts Centre Box Office, Humanities Theatre (885-4280). A presentation of the Creative Arts Board, Federation of Students.

Political Cartoons Exhibition

An exhibition of political cartoons will be on display in the UW Arts Centre Gallery, located in the Modern Languages Building, until Sunday, February 14. This exhibition includes the works of fifteen noted Canadian cartoonists, including Andy Donato, Ed Franklin, and former UW fine arts student Tony Jenkins. The Gallery is located in the Modern Languages building, open from 9 a.m. to 4 p.m. Monday to Friday and on Sundays from 2 to 5. Admission is free.

# COMING SOON

The infamous and as yet unofficial "New MathSoc" has concocted plans for a Mathweek, to be held March 10 to 13 (yes - a four day week!) Some of the events anticipated are

- Ski Night at Chicopee
- broomball and moonball games
- movies
- a pub (hopefully, with a live band)
- Car Rally

Watch for it!

# CSC Flash

Well, this is where the CSC Flash usually goes, but they didn't give us one so we'll write it.

The new CSC exec is : President- Unca Hen; Vice-Prez - Tracy Tims; Treasurer - Rohan Jayasekera; Secretary - Peter Rowley.

Following the elections (or rather, acclamations) the CSC had a very successful movie night. Featured was "Dr. Strangelove", Stanley Kubrick's film about the Bomb. Several short features were presented, including "Hardware Wars", "Henry 9 to 5" and an Italian animation about opera (what has all this got to do with computers? not much)

There was also a meeting on Wednesday featuring Paul Stachour speaking on Ada, PL/1 and Pascal. I'd like to be able to tell you about that, but I can't since today is Tuesday.

What's coming up? Well, the CSC is once again setting up Honeywell tutorials for the people that need to use it and don't know how to. Inquire at the office (MC 3037) for details. There are also several other meetings planned, but since I don't know anything about them...

Lastly, the CSC wants YOU!!! to: contribute cash (membership fee is only one dollar), help the above-named executive, or occupy the office Drop into MC 3037 anytime and ask for details.

Wow, what a quick rise through the ranks! My very first MATH NEWS and I get to write the masthead...what a power trip, if only I could think of something to say my life would be truly complete. I know !! I can thank the many people who also worked on this masterpiece. They are (not in alphabetical order) : Bruce Glassford, Ross Brown, jcwinterton, Shy Froshi, Steve Wolfe, Paul Dunsmare, Kevin Tureski and last and some say least of the writers, E. Siastes. These fine people wrote the actual articles which you have just read. Actual production of this issue was done by David Bray (production), Ralph Hicks (production) - oh oh !! - I see Dave has pulled a fast one by putting the word production beside everyone's name. ok then the rest of these people are all production - Walter Steineman, Chris Bajdik, James Puttick, Jane Roberts, David Till (who is the editor of this thing and hence pulls in the really big bucks) and me, whose name you will not find out until you scrape your eyes over the rest of this trash. oh yes - thanks to MFCF for letting us use their Diablo (I wish I knew what a Diablo was)!! And now to visit a close friend of mine, GC, I go... (Andy Morton)

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