## By-Elections ... 11.7\% TURNOUT

Final tallies have revealed an $11.7 \%$ turnout of eligible voters for last week's mathematics society elections. Chief Returning Officer, Randy Arsenault , termed the results "about par".

The highest percentage of voters went to third year with $14.3 \%$ of the electorate having exercised their franchise (40 of a possible 269 votes registered). 4? of 375 second year regular students cast ballots for an $11.2 \%$ turnout and 93 of 359 first year mathies brought their turnout to $10.8 \%$. Overall, of the 1503 qualifying voters, 175 managed to trek up to the nolling booth on the third floor.

For anyone who is as yet unaware of
the election results, here are the newly elected reps:
First Year :
Mary Ann llikkelsen
Andy Seibel
Ingrid Splettstoesser
2A Co-op:
Paul Satran (acclaimed)
Second Year Regular:
John Davies
Third Year:
John Manistre
Janet Martin
Incidently, approximate expenses for the election come to $\$ 71.50$ including $\$ 41.50$ for candidates' campaign expenses and $\$ 30$ for a Chevron ad.


We at mathiliws feel that an issue has arisen on this campus which warrants comment. We refer to the apparent orowing attemnt to "get the Chevron".

The haopening which initiated this uproar vas the recent Campus Centre nktoberfest venture. Now, as we al to the the Chevron was steadfastly onposed to not Campus Centre shut-do:mn and nktolerfestrelated happenings and said so in no uneven terms. ve at matin!!evs are $100 \%$ in sunport. of the Chevron's right to take such a stand on this rontroversial issure mathews does not necessarily mean that mat! the supports that stand but hoes support the right to make it int into the act on lathsnc first ${ }^{\text {? }}$. ihen at its council Tuesday, held in the pub at the nktoberfest mesting (held in the pubst a motion uhich event, incidently) passed a motion for read "the council condern the Chevron for production of the last page of the inctoher Sissue as being misleading and unnthical. " At the the same mecting, mathsoc al so agreed that "a petition made up hy Engsoc will be placed by the coffon and gonut stand so neople can either approvecordisapprove of the Chevron's rocent content." These two quotes come from the official minutes of tice above-mentionned meeting.

Engsoc made its position quite clear on the front page of the recent october issue of Enginevs in an editorial uritten by the engsoc president. leferrinn to the
afore-mentionned October 5th Chevron back page, the engsoc article reads in part: "The backpage take-off of the Board of
 in the nct. 5th issue of the Chevron was not only in bad taste, unrepresentative of people's attitudes to nktoberfest and an attack on the Board of Entertainment without giving them a chance to run the event first, but also showed the Chevron's true colours to be a non-informative, singular-minded paper, renresenting only those who run it and not giving a damn about student reaction." NOU REALLY, ve ask you, in all fairness, how could such a phrase "in ball places, Enginers, and apparently in a serious vein? Have you thumbed through an issue of Enginews lately? In bad taste?

Now, mathsoc and engsoc were clearly behind the Federation's nktoberfest event. The Chevron was clearly of the opposite view. The Chevron reacted with satire and arguments which clearly supported its stand. The societies' reactions? 'Iathsoc condemis the Chevron, and engsoc, apnarently in all serinusness, suggests "ciosing the Chevron down and firing all the staff." nver-reaction? To say the least.

In any event, we again want to make it clear tiat we do not necessarily endorse the Chevron's stand but we do endorse the chevron's right to make that stand.

## New Reps Present MATHSOC MEETS

"If I had known it was going to be that bad, I wouldn't have bothered going." "I thought the meeting was well organized. However, the continuous interjections by a couple of people tended to upset the general flow of the meeting."

These two somewhat diverse opinions were conveyed to mathNEWS by two new members of the mathematics society council when asked their opinions of their first mathsoc meeting.

First item of business for this nctober 23 meeting was the introduction of new reps (plus all others present). Following this exercise, the first report Following this exercise, the first report
came from Randall Arsenault, chief returning officer. He gave a detailed rundown of last week's election results (see front page article). Rosemary van den Akker, mathsoc treasurer, then summarized the state of the budget. The balance stands at $\$ 5463.53$. Last year's excess of funds came to $\$ 1894.63$ with $\$ 2000$ still owing for the anti-calendar. However, $\$ 1000$ will be coming from the Federation of Students through the Board of Education leaving $\$ 894.63$. So far this term, $\$ 165$ worth of society fees have been returned; orientation bills to the tune of $\$ 963.39$ have been received (with $\$ 500$ coming from the Federation's Board of Entertainment); the following expenses have also been incurred: computer science club \$5, election \$30. mathNEWS \$5.60. publicity \& pubiications over $\$ 100$ (including records and a new needle for the stereo).

Short reports on the Board of Education, the Federation's "Bitch Session" and the Campus Centre Board were heard. Vice President Andy Haycock then delivered the latest news from the AA\&CS Committee. The revised math 132 B course which was used experimentally during the past summer term has been approved. The A-part of the same course will see, in the future, an increased emphasis on Fortran (due to the apparent need of Fortran for math 233 statistics). There is also a change in requirements for honours degrees. Now 3 courses at the third and fourth year level outside of department requirements are necessary.

In old business, Howard Leblanc was appointed committee chairman for the Board of Education. It was mentioned that Jan Sandaj, 4 th year rep, has resigned.

Jim ilorris and llarg Telegdi, on behalf of the Birth Control Centre, requested a donation from mathsoc. Council was evenly split on the issue: should they give $\$ 100$ or $\$ 200$ ? After a long discussion it was decided, by a narrow margin, that mathsoc grant the Centre $\$ 200$.

An announcement was then made regarding math $T-s h i r t s$. There are $\$ 1200$ worth now sitting in the mathsoc office and the shirts are being sold at $\$ 2.50$ each. Following this the meeting ended.

## the phantom reports....

At 7:30 all I can say is, I wonder what the assignment due on the Honeywell is, that could cause normally sane, rational people to sit for hours hogging the terminals on us (even when the system was down, but then 1 don't suppose anyone around here can be considered normally sane or rational.) At what sane or rational institution would the N132A, H204B, ill22, and Hll2 consultants office be booked for classes during consulting hours?

And speaking of computer courses, 132 is going to FORTRASH for a while (supposedly so you can use it for stats in year two) and, of course, there is still no news on L6 for 11240 (how long have we got boys ?)

Now in APL there was a lot of action! Aside from playing musical terminals (there were always two terminals missing but hardly ever the same two. And the I.P. Sharpe update is (maybe) here (i.e. ${ }^{2}$ weeks... 3 weeks..??) Actually it seems that we had it a long time ago but when we got it, it was found that I.P.S. had labelled the tapes after making them, (i.e. the labels were over top of the part needed to load the system) which is to say we sent it back.

Also you probably remember that the CC70 now handles APL at the SERVICE? level... of course... there's that strange FLICK of the typeball at the end of each line. Plus the problem that while some CC70 lines are on, APL begins to burn CPU time (and peoples units) at about 20 times the normal rate (ever get a TIHER INTERRUPT on a " + "? ), so now and then they just kick a few lines off the 170 .

They fixed the standard system crasher last week, too. In so doing, of course, they kept themselves from doing any accounting maintenance, except by hand from the console. tsk...tsk...

Anyway llarg, $7320 \ddot{0} 960$ doesn't know John.

And to SCRUFFY TREADWELL: you see, I didn't even mention .-....-'s .....- or ------- 1 thereof.

And now goodnight all (at only 8:30pm).

## Career Info

Are you interested in a career with the Ontario Civil Service Commission? If so, the Career Planning and Placement C intre has advised mathilews that such a careers information talk will be held on Wednesday, nctober 31 at $3: 30 \mathrm{pm}$ in EL 211. Further information can be obtained by calling ext. 3675.


Down

1. factor affecting behavior
2. horse of a different colour
3. data storage device
4. do 4 across again
5. loved Narcissus
6. positioned near
7. definite article (Arab)

- direct

Indian home ( -2 letters)
. collection
3. body support
. MKS
quantity of memory
pas positif
5. plot
26. table handling verb (COBOL)
3. in approval of
. data storage device

1. several
required before action
. particulars (reverse)
. 1 of 4 (COBOL)
2. debugs and
multiplied by
classical drama (Janan)
8 dark colour
3. file operation
4. release
5. natural (abbrev)
6. define fiTe (COBOL)
7. Treek letter (-1 letter)
8. amidst

## GRIDWORD COMMEHT



## 不甹

P?(VE: $\quad 1=$ Ј
Pi?CF: Cousider:

$$
\sqrt{(5-x)}=1+\sqrt{x}
$$

square lonth sides

$$
\begin{aligned}
5-x & =1+2 \sqrt{x}+x \\
1-2 x & =2 \sqrt{x} \\
2-x & =\sqrt{x}
\end{aligned}
$$

square looth sides

$$
\begin{aligned}
& 4-4 x+x^{2}=x \\
& x^{2}-5 x+4=0
\end{aligned}
$$

$$
(x-1)(x-1)=0
$$

$$
x=4 \text { or } x=1
$$

$\operatorname{try} x=4$



## FACULTY COUNCIL MEETS

This was my first time in attending the faculty council meeting, and it is quite an eye-opener. Dne notices very quickly that all the decisions with regard to the lath faculty are made here. Several new courses proposed by the curriculum committee were approved. These are:

11438 (a)
Topics in estimation and hypothesis testing
:1438(b) Statistical inference with
small samples
:1439(a),(b) Theory of experimental
design
1449(a),(b) Experimental design
:1465(b) Topics in statistics
$4223(a)$ Introduction to statistical methods
:1223(b) Introduction to statistical methods (inferential)
inl 304 (b) Foundations of probability theory

Also approved were an additional tutorial hour for M217 and M237 students on a voluntary basis be provided by the faculty (that is, voluntary on the part of the students), and also a commercial law course for the math students, the content of which will be the same as $11 E 100$, but with a math orientation.

The most important issue that arose was the introduction of a new program, the business administation option. For this option, 3rd year requirements of calculus and algebra were replaced by other math courses, and question arose as to the fairness of granting these students a math degree. Ev- felt
that if the faculty's name were "Faculty of 'lathematical Sciences", this would not have been an issue. Voting vas tabled until the next meeting.

A new scholarship orogramme was approved, with emphasis on entrance awards made on the basis of first-year results.
dew course description for $4456(a)$ vas also approved, and Professor Kerr-Lawson provided an inspirational name: "ilath 456, pick up sticks".

Godfrey Lee

## FREE

HCTICF: A free T-shirt will be awarder to the nerson submitting an oririnal gridmerd which mathllf!'s uses for rublication. Tn submit your fridioord either l)dron around to Pr. 3011 Tuestav niohts, ap 2) tron it in the CAf"PIIS t'AII. (no stamn neoded) addressed to Rennis Pullin 21f-s, ris 3 ) nut it in the mathorime flle in the mathsec office.


The only team (?) we may have in women's intramurals is the competitive volleyball team... but things look doubtful for that. If no one has signed up by the 24 of jot. we will not have a team at all. THIS IS FUN AFTER ALL: (co-ed intramurals).

If someone on the co-ed volleyball team reads this, would vou please leave a message in the llathSoc office for Janice message in ther or not the team is playing saying whether signed up and don't know when the games are, they are posted each week on the bulletin board opposite the third floor lounge (you know $i i$ where the w sell coffee and doughnuts. All you have to do is look. If you know someone who wants do play for the volleyball team, could you please let them know where the signs are? Next games: Tues Oct 30 at 3:45 on court 3 vs $2 A$ Teachers $\# 2$ (now you can't say you didn't know).

The team list for broomball which was handed in today (22) was very encouraging. Seems that there are some girls out there who like to play broomball. In fact, the number of girls on the list was greater than the number of guys. Their first game will be announced today on the bulletin will be and as many as possible will have board and as many by phone. If you signed up been contacted by phone. and haven't been contacted, do one of the following:
a) don't show up-- just out of spite, or
b) go to the bulletin board and find out for yourself (you're a big girl/boy now).

The ilathie Dolphins- our inner-tube water polo team is doing very well. They drowned Davev's Darbs on the 10th to the tune of 20 to 4 (or something like that). tune of week they remembered to stay in The next week they remend met their match their inner-tubes and met So far, the against the Hustlers (a tie). So far, mber team still has only one girl member although they do manage to find a straggler or two in the pool at game time (or even resort to borrowing a girl from the other resort to borrowing iould nice to have some more (two at least) willing to have some fun for half an hour on lled. nights and who
own a swim suit? If so, we would welcome you.
Hext game: Dct 31 (Wed) at 8:30 vs Cap'n Krunch's Navy.
*Another activity you can still sign up for is the Co-ed Curling Bonspiel.

## basketball...OUTDRIBBLED

Both of Math's baskethall teams started their season's on donday night. Infortunately, we have no report on the game involving the co-op llath team. Also unfortunately, we do have a report of Regular Math's game.

The team kept up its tradition of losing (last year it lost 11 of 12 games) by dropping a 39-24 decision to Lower Eng. The match was close at half time (21-16) but the Mathies' legs couldn't keep up the pace in the latter half.
scorers for the Reg llath team were:
Gabriel (3), Bruce Pearson (8). Mike Gabriel (6) and Norm Macdonald (2).

Hext game for both teams is next Monday night. Check the bulletin board outside the 3 rd floor lounge for times and opposition.

## soccer ... <br> SQUAD GELS

The regular soccer season ended for the math team on Monday. It appears quite certain that with a 4-2-0 record, the team will be in the second or third playoff spot in the league.

The squad had quite an exciting season despite the fact that they lost two of their first three matches, both by 3-1 counts. Hinor injuries to three key colayers were obviously a factor in these players were obviously a factor defeats. Hovever, with the assistance of new recruits, the team won its last three games the last one a 5-0 whitewash of Chem Eng, (which was also the team's third shutout).

The team seems to have gelled and has an excellent chance of taking the championship.
quarter-final and semi-final games will be held next Monday and Nednesday (Oct. 29 and 31) at Columbia Field No. 4.

## Dr. Berman

## PROF of the WEEK

Dr. Berman was born in a place called Semans, Saskatchewan, on November the twelfth, in the year of our Lord, 1924. He lived there during his "younger years", and then moved to Toronto, :there he obtained all three of his degrees at the University of Toronto. The B. A. in llathematics he received in 1947, the H.A. in Applied llathematics in 1948, and the PhD. in Combinatorics in 1950 .

Somewhere along the line he got married, and now he has four children,three hoys and a girl, one of the boys presently attending universitv.

In to this time Dr. Berman has had about sixty publications printed in various places, such as the "Canadian Mathematical Journal", "Transactions America Society", "Mathematics llonthly", "Proceedings of the American llathematics Society", and the "Siam Revue". He has also published articles for NASA and other technical institutions.

He was one of the first professors of mathematics here at the university, teaching when it came into existence that first year. At that time it was just the department of mathematics. When the Faculty of liathematics was started, he organized his department(Combinatorics and optimization), and has remained chairman ever since.

He has been a consultant on space problems during the summers, and prefers research to the administrative duties of running a department. It was only because he saw the need of instituting a department in this area did he forgo full time research; however he is hoping that he will be able to go back to it, as well as teaching.

In his years here he has taught nearly every course in the department, and at the moment is teaching combinatorics. He believes that 1 . of H. has the best mathematics anywhere.

His opinion of this university is that it is too big, and will become another University of Toronto if it continues in like manner. There is not enough personal contact with the students.

In his first vear here the maximum class size was about forty students in mathematics in first year. now there are about five classes of two hundred each. This is because of growth, and the fact that the teaching workload has decreased from 12 to fi-8 hours a week. This is due to too much additional administrative work; also, professors are expected to do nore research.

Or. Berman feels he doesn't get the personaj contact with the students that he wants; he used to teach several elementary classes, and enjoyed the fact that they were small and he had very good relations with the students.

He also added a comment: The Physics building was originally the llathematices building and was designed with the assistance of a U. of H . professor. There are no large classrooms in the huilding, so that tendencies toward personal contact could be developed: however, this is possible only in a small university.

Dr. Berman states that ive are still better than 1. of $T$. There was absolutely no contact between the professors and the students: you couldn't even ask questions in class. He believes that U. of $N$. expanded because all of the professors were vitally interested in their students.

One other difference that has come into existence with growth is burnaucracy. you used to be able to go straight to the president or vice-president if you wanted something done. Now you have to start at the bottom, the committees, and work your way un.

He feels that it would be impossible to start another department at this stage of the game; U. of T. cannot even separate Arts and Sciences into separate faculties. A good word for mathliE!S: ve serve an excellent purpose by allowing complaints about professors and courses to be aired, but we should make sure profrssors get a copy.

## rep. report

## SAC MEETING

The most recent meeting of the Student Advisory Council was held last oct.l7. With a larger attendance on behalf of coordination and the various societies than last time, a discussion was initiated concerning the role of the co-ordination department. liany facets of this role were discussed, including job canvasses, job descriptions, student intervie:ts, ranking process and job assignment, the job itself and job evaluation. Difficulties concerning job descriptions, particularly in the kinesiology, recreation and systems design programs vere mentionned. These areas are ones in whic! the jobs, and for that matter, the courses, are not yet welldefined, making job placement a more difficult task than usual.

The discussion was long but informative. Some conclusions that could be drawn from the meeting were that: students could make job contacts on their own thus establishing co-op jobs, and that coordinators should try to represent the program at as many trade shows as possible. At the next meeting, correlations between changes in industry and changes in courses
and programs will be discussed. An open invitation is extended to the faculty members to attend this meeting, in order to balance the discussion. The possibility of co-ordinator critiques will also be looked into next time.

## FEEDBACK

(Note: Letters appearing in this column represent the opinions of our readers. mathNEWS welcomes your criticisms, comments, suggestions, etc. All letters should be signed, but, if requested, a pen name will be used. Submit your feedback to IIC 3038 and have someone there deposit it in the mathNEWS file. Or, drop vour letters in the campus mail (a free service) addressed to: mathiUEWS, AC 3038.)

## chevron

To all iathies and Engies:
Your noble "representative" societies have taken upon themselves to beat the chevron acause it has dared to disagree with the way they were running the Campus.

The contentious issue is oktoberfest which the Engsoc and Hathsoc seem to think is OK just because it was passed by the 25 representatives of the Fed Council, "they'resupposed to be representative", and was pushed tirsugh the C.C. Board during the summer.
llowever, the important issue is not Oktoberfest, but the fact that the powers that be wish to limit the news we recieve. The Chevron supported one side of the contentious oktoberfest issue with logical arguments and satire, among other things, but the supporters of oktoberfest used only condemnations and insults (eg.. lathsce: condemned the Chevron). The president of Enginews calls those who protested the closing of the Campus Centre " 10 or 12 misinformed people". He calls the Chevron non-informative, singular-minded etc. without ever giving arguments to support these claims. To top it off he seems to desire the closing down of the chevron. Never did the pro-nktoherfesters present good arguments for their plan though they had the chevron feedback, mathNEWS, and Enginews open to them, but after the fact, they come on strong with the insults, trying to shut up anyone who disagrees with them.

If you are the type of person who is not perfect, enjoys reading views that are different from your own, who does not think he has all the answers, then tell your 'Iath/Eng Soc rep that you disagree with him.

If you are the type of person who tries to get rid of anyone who disagrees with you, and refuses to listen to his ideas, then the close-minded councils of Aath and Eng Socs are the places for you. Peter Tanner 4th yr .

## CLASSIFIED

( Hote: mathNEWS will print your classified ads FREE OF CHARGE. Just jot them down on a slip of paper, take it to room IIC 3038 and have someone there deposit it in the mathNEWS file. Or, drop your ad in the campus mail (a free service) addressed to: mathNEWS, if 3038.$)$

- NOTICE: T-shirts now on sale. New shipment just in. $\$ 2.50$ each due to increase in price per dozen. Mathsoc office MC 3038.
- WANTED: A special volunteer is needed to help a five-year-old child with blind mother . Someone is needed to be with the child in kindergarten from 9:00-11:30 Monday through Friday. For more information contact the Centrai volunteer Bureau, 578-7430.
- FOR SALE: 1 Honda 50, phone 579-0877, llarsha.
- TYPING: Do you have any typing to be done? Typing done in my home. Phone 743-0230(please let phone ring).
- ARE YOIJ COPECETIC? Are vou sure vou're not? חon't be ashamed; in ran helr eact other. rox 5, c/a mathilfuc.
- MANTFN: Aprrentice for vorit-famous wizard. Thn pav, no vork. lust have nion hat. (P.s. nn llzarts). C. llizart, fox 13, c/a mathirils.
- Larybirithispel.
remerts are willing to teach this exciting game for a small fee. nron around to the 2nd floor Solith Lounce. Ask for the "labyrinthsnel exnerts".
mathHEWS - a news weekly nublished at the university of waterloo, is financed through mathematics society fees and is available free of charge to math undergrads. The views and opinions expressed herein are those of the mathNEWS staff and are made independently of both the university administration and the math society. mathvews welcomes your contributions, suggestions, criticisms, advertisements (published free of charge), feedback, etc. Contact us via room 3038. Ne put the whole thing together on Tuesday nights in $11 C$ 3011; feel free to drop in. Circulation this issue: 1000.

Well, we find ourselves with plenty of company this Tuesday night, all night, due to the fact that math 474 A assignments are due tomorrow (but which also means a struggle for terminals) ... Another thing, why does the honey:rell always reserve Tuesday nights for crashes? ... To our typists and ged experts: why did you all pick the same week to take a night off? round of applause to Peggy lacmillan, Ingrid, Janice llalligan (well, at least we removed the hairs from the leg) and Godfrey Lee... Tonight we were: Peter Raynham, Dennis llullin, Paul Lear, Andy Seibel, the phantom, Dave Brown, Jason Hiller, John Davies, Norm Macdonald, Dave Newell, Fandall l'cDourall and lohn feetles.
Next mathMEWS session: Tues. Oct. 23 at 7 pm in IIC 3011. Fresh faces are always welcome (you'll notice some new names this issue).

