ENGINEERS WEAR CHEAP PERFUME!!!!!!

(MC 3038)—On July 4, 1977, one of the thrice—yearly stampedes of engineers converged on the math building. They were only half an hour late; supposedly they were to arrive at 12:30.

Led by a bagpiper and an over—glorified dune bugger, they strategically avoided the main double doors. Fortunately, they did not avoid the sudden cloud—bursts from the third floor balcony. It was the new style point delivery rain, guaranteed to deliver its rubber encased water to the target site.

Even C&D contributed half a kilogram (about a pound) of ground coffee to be shipped via air mail to the engineers.

Undeterred, the engineers rampaged up the staircase to the third floor where they were greeted by the remaining water bombs. JJ repeated his great garbage—can—full—of—water trick on Peter *QUEEN*, the **DICTATOR** of *eng schlock*. From eye—witness reports, JJ released the can after dumping the water (just like last time). Mr. Queen is reported to

still be in a coma but in unsatisfactory condition.

As the members of the inaction squad, who were *not* wearing their requisite white robes with the triple K on the left upper breast, were wheeled along by the **FLACCID TOOLE**, the walking *ARM PITS* carrying the tool were doused with an unforgettable fragrance. It was called "Ask Sam, she bought it"—strange name but it had the strange odour of stale engineers.

The sole casualty, JJ, got his nose caught in the jaws of a locomotive cylinder wrench.

At last sighting the stampede wound throughout M&C, then rumbled into the CC, followed closely by two intrepid mathies with a Glad bag full of water.

Outside the CC the dune bugger got caught in a deluge of stale eggs (about two dozen), and the Glad bag broke before it could be launched. Man from Glad: we aren't impressed.

A note of protest is being sent to *Eng Soc* for that dismal showing that they dared to call a parade.

Prez Talks

On July 22/77, MathSoc will be holding a banquet for all math students in athletics. The banquet will consist of awards to members of teams who are considered most valuable to the team, a smorgasbord at the Laurel Room and a pub afterwards in the Math Faculty Lounge (this pub is open to everyone, and will be the final pub of the term). Tickets for the banquet will be $2.00 per person and are available in room M&C3038. The pub afterwards will have free admission. The music will be Rock & Disco by Ghost. I hope to see many of you out at the pub as it is the final pub of the term.

Finally, all mathletic team captains should see me about the awards and tell me whether or not their teams will attend.

Andy Mueller

Thursday June 14th, 1977

mathNEWS

CSC FLASH

The most recent CSC meeting was held on Thursday, June 30. Our guest speaker that evening was Dr. Glenford J. Myers of IBM's *Systems Research Institute*. Dr. Myers is also a lecturer at the Polytechnic Institute of New York. He is the author of two books, *Reliable Software Through Composite Design* and *Software Reliability: Principles and Practices.*

The topic of Myers's talk was software reliability, and the first part was spent defining the software design process and the relationships between the various steps therein. He pointed out that the percentages of errors at the design stages, communication between analysts and user documentation were the highest of all. Errors committed in the above stages were also found to be the most difficult to extricate from a system, because they so permeated the design and the user's impression of what the system did or didn't do for him. Myers found that program coding errors were still significant to reliability, but were much easier to correct and less likely to have proliferated throughout.

Also discussed was the relationship between the machine chosen and

implementation language (i.e. the programming language that the system is coded in) to the errors in coding. Under this point he mentioned lack of consistency as a major problem. One example mentioned was the various methods available to allocate datasets under IBM's MVS operating system, each of which had a different syntax.

Getting down to program design, *structured programming* and *stepwise refinement* were also mentioned as good for reliability. Members of the audience brought up the point that stepwise refinement is highly dependent on the language being used, and that *primitives* that are easily done in the target language first be settled upon, before the stepwise refinement process begins. For that matter, design might be best done from the bottom up since the arrived—at primitives might be incredibly difficult to code in the target language.

Finally, software testing methods were discussed. Myers talked about the top—down approach advocated by IBM, where *stubs* of modules were created and used by higher level routines simply so the high level routines could be tested. He pointed out that a major flaw in this strategy

was that inputs from a *stub* node on the module *tree* might influence the behaviour of a subsequent *stub* so that both routines would have to be really coded for adequate testing. Another flaw the author found in this methodology was that if different results from stubs influenced the flow of control in the caller then the *stub* had to return different values on different inputs, effectively behaving as the *real* module should.

Other testing strategies such as exhaustive input, testing all branches, testing all statements and testing all *paths* were also noted.

Dr. Myers is currently conducting research into debugging techniques by means of psychological testing on some fifty experienced programmers. He is also doing research on the area of high level language computer architectures.

The next CSC meeting will be on Tuesday, July 12 at 4:30 PM in MC5158. The speaker is Professor Ken Sevcik from U. of Toronto. He will be talking about *Performance Evaluation for Data Base Management Systems.* The next **mathNEWS** will publish our list of fall speakers, along with dates and topics. The upcoming two terms should be most stimulating.

1

SAM 'N' TAK

Hi Folks!

We were pretty disappointed because many people complained about the degree of difficulty in last week's quiz. We guess we overestimated our readers' talents. So this week's quiz will be a little easier. But first, a few words are necessary regarding last week's questions. Even though they were hard, many of the questions brought back old memories and a few smiles to our readers' faces.

Due to the late issue of **mathNEWS**, we did not receive many solutions before this column went to press. However, we did receive one set of answers from James Hoffman, who scored 23 out of 40. Not a bad score, actually. And now, here are the correct answers to last week's quiz on Saturday morning TV shows.

Felix the Cat's friend was named Poindexter and their arch—rival was the Master Cylinder.

The police officer in Top Cat was Officer Dibble. The cats were Choo—Choo, Brains, Spook and Benny.

Mighty Mouse's theme song was "Here I Come to Save the Day".

Quick Draw McGraw's little friend was Baba Louie, the burro.

The three stooges were Curly Howard, Larry Fine, Moe Howard and Shemp Howard. Moe and Shemp were the brothers. Curly was a cousin.

George Jetson worked for Elmo Spacely at Spacely Sprockets. The Jetsons' maid was called Rosie.

Sergeant Garcia was the sergeant in Zorro.

Bob Keeshan's other role was Clarabelle the Clown on the Howdy Doody Show. (Wasn't that easy???)

Superman was played by George Reeve, who incidentally committed suicide by shooting himself. (There is still some controversy about whether it was suicide or murder.)

Yogi Bear lived in Jellystone National Park.

Alice the Goon was in the Popeye cartoons. (Incidentally, she was in love with Popeye and kept kidnapping him.)

Mister Magoo actually thought his cat was a dog, because he was so short—sighted. So he called the cat Bowser.

Heckle and Jeckle were the two magpies on the Mighty Mouse Show.

Sky King's plane was called Songbird.

On Fury, the father was played by Peter Graves, better known as Jim Phelps on Mission: Impossible. (Another piece of trivia: his brother is James Arness, who played Marshall Dillon on Gunsmoke. The stage name 'Arness' was taken from their mother's maiden name.

The evil fish on Diver Dan was Baron Barracuda.

The voices on all the Bugs Bunny cartoons were done by Mel Blanc.

Dishonest John was the bad guy on Beany and Cecil. (His Favourite line was "Nyah—ah—ah!".)

The general in Roger Ramjet was named General Brassbottom.

The name of the centaur on Hercules was Newton. Hercules' girlfriend was Helena. (She was very good at screaming.)

Johnny Quest's dog was named Bandit because of the dark patch over his eyes.

Shari Lewis' puppet friends were Lamb Chops, Charlie Horse and Hush Puppy.

For this week's quiz, in light of our nation's 110th birthday, we present a Canadian—content quiz (to keep the CRTC happy). The topic is Canadian sports. All questions concern Canadian sports personalities or Canadian sports in general. Since the questions are easier than the last set, we hope to see more solutions submitted and some higher scores. If not, we'll have to make the next set of questions even easier.

Enough gab. On to the questions.

In the last 15 years, how many different teams have won the Stanley Cup? Name them.

Who was the last Canadian to skip (captain) a world curling championship team?

Who invented basketball?

Which Canadian swimmer was nicknamed 'Mighty Mouse'?

Who was the Toronto Blue Jays' first draft choice?

When was the last time the Toronto Argonauts won a Grey Cup? (in November, not June!)

Who was the last Canadian skier to win the World Cup?

Which Canadian was the first North American to compete in the world snooker championships?

Which Canadian high jumper won a silver medal at the 1976 Olympics in Montreal?

Which Canadian jockey was the first to win 500 races in one year?

What is the name of Toronto's team in the North American Soccer League?

Who was the last Canadian boxer to hold a world championship?

Name two of the members of Canada's gold—medal equestrian team at the 1968 Olympics at Mexico City.

Who was the last Canadian golfer to win two consecutive tournaments on the PGA tour?

What is Canada's national sport?

Okey—dokey people! There they are. Just waiting for you to answer them. We're hoping for a really good response from you this time. Since we have no idea when this issue will come out and when the next issue will go to press, try to get your answers in as soon as possible. As always, send your answers to rhtakashima or scveffer on the TSS mail system. Or you can drop them in the **mathNEWS** mailbox on the third floor. We still welcome any suggestions or trivia questions you might want to ask us. See you soon.
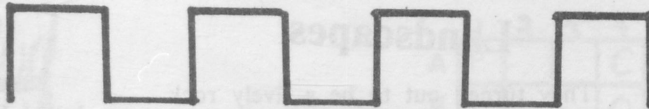
Sam'n'Tak

Fountains

If you've ever tried biking on a really windy day, like it's been lately, you should try flying a kite. Last Saturday, I tried it after a long time. Kites come in every colour, design and shape. The first kite I saw was a beautiful model of a parafoil. From the side, it looks like a parachute. But when it gets up in the air, the kite forms an airfoil. This causes it to fly almost straight up. Then I tried a variety of kites from a simple flat kite to a long snake kite. But the one that is the most fun to fly is a fighter kite. The control you have over it makes it different from most. We only had one, but you're supposed to bring two and fight them until one can't fly any more. Some have glass tails to help cut the other kites' strings.

The MFCF thought up a new way to keep users on the Honeywell. Now when you try typing "logo", you get "memory fault at 000252". Then you realize that there must have been a reason for providing so many ways to sign off, so you try "bye" or "off". Then you get the message "Must release temp files", and won't sign you off. It would be nice if the same thing happened when you timeout.

A very simple but elegant problem appeared in this year's Junior Mathematics Contest. Even if you've never heard of the contest before, you couldn't have missed seeing all the JMC userids signed on a few weeks ago. If you place well enough in that contest, or another one called the Euclid, you get invited to a week long seminar. The students are then given a crash course in APL and stats. You usually have a lot of fun. Anyway, here's the problem: You are given two numbers. When you sum the digits of the first number you get 45. The sum of the digits for the second number gives you 55. When you sum the numbers you notice that there are five carry overs. What is the sum of the digits of the sum of the two numbers?

2

PULSE

After a lengthy vacation **PULSE** returns to talk about some of the inadequacies of **APL** as a programming language, and other tidbits.

Many *APL* freaks at this university have taken it upon themselves to extoll the many virtues of *APL* as a programming language. They approach their task with the zeal of people trying to convert one to a religion. Should one slight *APL*, then one better be prepared for the onslaught of invective coming one's way; the author stands prepared to accept this.

APL has some merit as a programming language. Its operators (primitives) that perform many algebraic manipulations and functions on scalars, vectors and arrays provide a concise notation for the programmer. This in itself has merit, but the degree of flexibility in working with the above mentioned data structures is insufficient to program for applications such as real–time control, operating systems and data base management systems. We mention the above applications, which are obviously not suited to *APL*, because some of the more mis–guided addicts believe that it is a completely general language that can solve the software problems of the world.

A major fault in the language is the limited number of flow of control structures available. More precisely there is the conditional goto, the sequential, and the function call. These are roughly equivalent to those available in **Fortran IV** and most of the computing community are aware how weak these flow of control structures are. More precisely, the *if-then-else* construct as well as the *do-while* construct are missing. Pre–processors could do the trick, but the code produced from this preprocessor will be the code one has to debug from. This code is often not recognizable from the original in terms of flow of control.

Proposed extensions to *APL*'s data structures could do well to improve the situation, and *Hewlett-Packard*'s **APLGOL** is supposed to have some improved control structures. These remain to be adopted by the *APL* community.

Honeywell has a cannibalized version of GCOS3 release 1–G to take advantage of the yet–to–be–disclosed NSA architecture on our 66/60. This operating system is called **STAGE1**. According to unreliable sources, it remains *buggy* and sometimes can't get past the **STARTUP** routine. Most of us here can't wait until *GCOS 66* arrives, Honeywell–ized.

Along with release 3–I of *GCOS3* came this wonderful addition called **UFAS**. *UFAS* is so wonderful that very few people here know about it or use it knowingly. Unknowingly, though, they use it every time they use **GFRC** (pronounced *GEE-FRICK*). Yes, *UFAS* is *GFRC* and a lot more, only the extras have been generally avoided (like the plague?).

Steve Johnson of Bell Labs was here last week (last week of June). He gave a seminar on some of the portability aspects of the C language. An interesting point he made about porting C to the /360 was that C believes in *ascii*, but that the /360 believes in *ebcdic* and this causes headaches for the compiler with the holes in the *ebcdic* alphabetics.

In a previous issue of **mathNEWS**, Exil Q. Trob criticized this column's item about IBM's 3033 processor in the system 370 series. The 3033 processor designation is a departure from the previous designations in the series. For example, the processor for a model 158 was a 3158. The attached processors, introduced more recently were numbered 3058 and 3068 for the models 158 and 168 respectively. Clearly the 3033 processor designation is a change. The rumour about the processor being the hardware developed for the FS series was obtained from a DP trade mag.

Tidbits: The **NOVA** in the mini–lab is expecting a fixed head disk sometime in the near future. An industrious graduate student has it in mind to port **UNIX** to the /370; an admirable goal.

APLsauce

First, two corrections to the last column. That funny–looking non–APL character should really have been a greater–than–or–equal–to symbol, and the second occurrence of the name *'COMPRESS'* should actually have been *'REV'*.

RESULTS OF THE SECOND *APLsauce* CONTEST: The entrants were Andre Cyr, David Fishbaum, Dave King, Steve Locke, Martin Taylor, and Exil Q. Trob (Dave Gillett). Unfortunately, three entries had to be disqualified for not meeting the contest specifications: David Fishbaum's (which used a loop),

AN APLer's REPLY

The author of **PULSE** is certainly no expert on APL. He *still* hasn't learned the difference between operators and primitives (the distinction was quite carefully explained in the last *APLsauce* column), and he talks about "scalars, vectors and arrays" when scalars and vectors *are* arrays.

About those "mis–guided addicts" with whose claims the author attempts to attack APL: if they're so misguided, why does he listen to them? He might as well quote Idi Amin.

It makes no sense to compare the control structures of APL with those of (ugh!) Fortran IV. The branching methods and function–calling mechanisms of the two languages are completely different. The APL branch is *not* a "conditional goto", as it takes as argument any APL expression which returns a result, and APL's function–calling system allows people to implement their own *if-then-else* and *do-while* constructs (as well as any others they may wish to dream up).

To close, I might point out the dangers of criticizing APL on the basis of its differences with "standard" languages. If people had refused back in the fifties and sixties to use new languages because of their differences with Fortran, where would we be today?

Martin Taylor's (which reversed the entire argument rather than just the letters within each word), and the Trob's (which mislocated some spaces). Of those remaining, **Steve Locke**'s was the shortest and the most elegant (and the fastest, although speed was not considered in selecting the winner). His entry (slightly modified for readability) follows:

```
        ∇ Z←REV V;I;C
[1]       V←' ',V,' '
[2]       I←⍳⍴V
[3]       C←(V=' ')/I
[4]       Z←V[1↓¯1↓((C-¯1↓0,
          C) COMPRESS C+¯1↓
          0,C)+I]
        ∇

        ∇ Z←M COMPRESS C;N
[1]       Z←(,M∘.≥⍳⌈/M)/,⍉
          (⍴(M←⌈/M),⍴M)⍴C
        ∇
```

THE THIRD *APLsauce* CONTEST: This one was suggested by Brian Gregory. Write a monadic function with explicit result called *EVAL* which evaluates an expression consisting of digits and the primitives +, −, ×, and ÷, used in both their monadic and dyadic forms. For example:

```
    EVAL '3×¯80÷40÷×413'
¯6
```

First there were mood rings, now there's thermodynamics. Mood rings work with humidity, thermodynamics with heat.

Liquid crystals are used for many things, like digital watches, or finding hotspots in micro−circuits. One of their characteristics is that they go through the complete colour spectrum in a 2°C range (red, orange, yellow, green, blue). By mixing different ones you get wider ranges.

Dr. Makow of the National Research Council was using liquid crystals in finding out how much ultraviolet the paintings at the National Art Gallery receive, when he came up with a brilliant idea. Why not mix the crystals with water and paint with them? The water would evaporate leaving a film of crystals. Thus there would be a different coloured painting depending upon the temperature in the room.

He tried it out and was so successful that he painted up a whole bunch of surrealistic paintings (it's hard to paint realistic paintings if your colours keep changing). He sold many after an impressive display at the National Art Gallery.

They are a lot of fun. You can "finger paint" using the heat of your fingers to produce different paintings. By using a light you can produce "glows" of dark blue in contrast with lighter colours. They provide an ever−changing source of amazement.

Thermodynamic paintings will open up a whole new spectrum in art. We will certainly be seeing more applications for liquid crystals.

The rock group *yes* (with Rick Wakeman) sold out three dates in New York four months in advance. Their new album is due to be released this month.

In a downtown store I saw a book called "Religions of the World Simplified". Now that's what the world needs.

Well, here is Boston's second album, and it's done by a group called Foreigner. Actually this group has six members, having added the keyboard player that Boston badly needs.

Foreigner is a British rock 'n roll group formed by Mick Jones (Jagger?) and Ian Macdonald to produce money. Jones plays lead guitar and Macdonald plays guitars, keyboards, and horns. They obtained 4 add−ons in the way of Lou Gramm, who sings lead vocals, Al Greenwood, Keyboard; Ed Gagliadi, Bass; and Denesis Elliott, Drums.

Landscapes

They turned out to be a lively rock 'n roll group, playing straight−forward semi−original tunes, with the standard semi−meaningless lyrics thrown in. Nothing awful but nothing fantastic.

Thanks to the money behind them, the group's first single, "It Feels Like the First Time", quickly got on the charts, where it was (is) highly successful. This is the first cut of the album. It's a very nice song that suffers from two things:
1) Corny lyrics (I would climb any mountain ...) and
2) Too much repetition.
That is, it has the key ingredients for an AM single. One really annoying feature of this song is the middle keyboard stuff is from an early Gentle Giant album.

Notable cuts of the album are Starrider, The Damage is Done, and Fool for You Anyway. Jones' guitar work is good throughout the album. Macdonald rounds out the rough edges in a couple of songs.

The future of this group is in doubt. The second album will probably sound the same as the first, and thus sales may drop. But if you like rock 'n roll, Foreigner's first album is worth buying, at a $3.99 record special.

Do you like pizzas with a thick crust? Then Tony's is the place for you. They make a very tasty pizza that some rate the best in Waterloo (yes, better than Mother's). They are opposite the Mr. Submarine on King St. in Waterloo. Try them! (End of plug).

Well I hear that Watfiv is now ten years old. You'd think that they would get rid of it. But no, instead they inflict upon the students Watfiv−S (for stupid?), which mostly convinces students that they hate structured programming. Anyone here for SP/k? (Proofreader: Yes!!!)

Judging from the comments received for Antical, CS 150 is in need of an overhaul and a new programming language, currently that ill−fated attempt to produce *THE* teaching language: **Watmap**. Instead they will probably make it a second year course. (Proofreader: they already have!)

Alan Parson's second album is entitled "I Robot", which was stolen from Isaac Asimov. But the music wasn't stolen from Isaac Asimov. It was stolen from Pink Floyd, Genesis, the "Car Wash" soundtrack, Alan Parson, the Beatles ...

Joke: I have some bad news and some good news. First the bad news. A cat was run over today in Uganda. Now, the good news. Idi Amin was holding the cat.
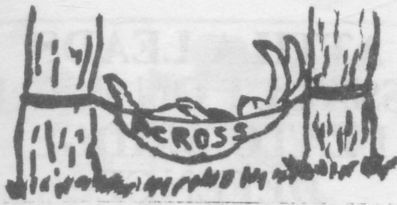
−mjd

Minority CRG Government Meets Difficulty

As the new session of the legislative council opened last week, the minority CRG government found itself in a tenuous position. Recently narrowly elected, due to McDougall's big win in Math East, the Thompson government finds itself assaulted on many fronts. The party leadership is in question, and it could go to VP Hipner, or to another leadership contender. Thompson has reiterated his intention to remain in office "until after the referendum", but already internal dissension is threatening to split the party.

The Free and Democratic Party has emerged stronger than ever from the recent elections (and acclamations). The work of many lawyers saw FDP leader Dave Cotter returned by a heavy margin in the Grad East constituency. The FDP also captured Grad West, Science Centre, and Environmental South. They recently scored a major victory on the floor of the council through the help of the separatist Parti Ingunear led by Pierre Roi. Roi, while not supporting all FDP policies, felt that "pressing" issues needed to be solved quickly. He mentioned the nine−month−old problem of living conditions in the lower areas of the Campus Centre. Roi considers his major aim to be winning an upcoming referendum.

Last week's session saw the return of Parry Wylie and the Quite Frankly Party to a position of prominence. Wylie, who had once announced his retirement from politics in disgust, regained the Quite Frankly leadership and his Renison seat at a time when it was felt that both he and his party were "courting" disaster. He is talking now of eventually bringing his party to official opposition status.

Recently there has been no word from Thug Thompson. After his attempt to win a majority failed, he apparently left the province on an extended vacation. He was not at last week's session. It is now thought that he is considering resigning. This could cause another election with a new party leader.

ACROSS

A1 —Tss environment
A7 —The _____ & the pendulum
A11 —Csc apl fiend
B1 —{rjb, bcmatthews, jwgraham, ...}
B7 —(p|q)&~(p&q)
B11 —Official decree
C1 —Town in NW France;pop 21,893(1974)
C9 —K+i → ki
D1 —2 quarts(hebrew)
D5 —4 pin tube
D13 —Enzyme ending(chem)
E1 —Glassy transparent(poetic)
E9 —Craver
F3 —National chemical insitute *NIC*
F7 —Born
F*11* —Bloke
G1 —Magnetik tape brand
G9 —Exhibiting artful dextrosity for secresy *SUCRESY*
H1 —Stuck for words i.e. no examples
H4 —$\lim_{n \to \infty} (1 + 1/n)^n$
H6 —Is 2nd person
H8 —Modern quappa
H10 —Renaldo's lang.
H12—Me
H14—Read/write
I1 —Flower grower
I9 —S.A. rivers
J3 —Middle European country(abbrev)
J7 —Give diamond ring to _____
J11 —Took along
K1 —Parse *ANALYZE*
K9 —Idiot then & (2 wds)
L1 —QED
L5 —Brothed rice w/meat, cheese,etc
L13 —Compass point
M1 —B.C.R. lastest album (Johann)
M9 —Hack : systems
N1 —Belonging to Jacob's brother
N7 —West coast university
N11—Improper heart condition
O1 —Hit again *REHIT*
O7 —C
O11—Gave us the shaft (*HARRY*)

DOWN

1A —Hw account giver
1G —What's the _____ *D1F*
1K —Snake *ADDER*
2A —To relieve
2G —A teleost fish (apodes)
2K —~orderly
3A —Ponytail hair position
3I —Old testament book
4A —$\sqrt{csc^{**}2-1}$
4E —Verbatim
4M —Classification, student
5A —Roman pandemonium
5I —Corroded wall crawler
6C —Wing (comb. form)
6G —One finds helpful turkeys there *NUS*
6K —Undesirable
7A —$\begin{array}{c} | \quad | \quad | \quad | \quad / \\ -C-C-C-C=C \\ | \quad | \quad | \quad | \quad \backslash \end{array}$
7I —Minotaur slayer
8A —H14
8D —Is 2nd person
8F —3rd tone in scale of C
8H —Farthing
8I —Medieval roman numeral for 250
8L —Pint
8N —$2\_\_ | \sim2\_\_$
9A —3/4 D5
9I —Ant_____
10C —Like (suffix)
10G —8 on the _____
10K —Lightnin'(abbr.)
11A —An ill bred boor
11I —Dishcloth gourd
12A —Oklahomian — e
12E —Na → Na+
12M—Period of time
13A —Old peril
13I —Long journey
14A —End enzymes?
14G —Transgress
14K —Most (palendromic) *STATS.*
15A —Short adder
15G —*ABBA* song
15K —Analyzes

MPLA VICTORY

All salute the great democratic victory of the Mathematian people. Thanks to the work of the MPLA (Math Peoples' Liberation Army) led by the revolutionary rhetoric of the valiant Che Che, the Fascist King and his ERA has been sunk. Much credit must go to Science Officer J.L.Hooker, and our AK AM & FM radio. All helped in this splashing victory, even the Earl (who left the country to be out of the way). This has been a great victory for the people, and we must continue the revolutionary fervor.

m.p.l.a.

BIZBALLER STATISTICS

NAME	AB	R	H	RBI	AVE
MAYNARD	6	3	5	1	.833
VEFFER	12	7	9	6	.750
KELLAND	13	8	9	4	.692
ROBLIN	16	5	11	15	.688
KURTZ	3	1	2	0	.667
TISHCOFF	13	9	8	6	.615
RICHARDSON	14	8	8	2	.571
DOUGAN	14	3	6	1	.429
STUBBINS	10	0	4	4	.400
TELFORD	5	1	2	0	.400
STRANGWAY	15	2	4	0	.267
BURFORD	5	1	1	1	.200
SHREEVE	5	0	1	0	.200
SKUCE	17	5	2	0	.118
FORREST	2	1	0	1	.000
KING	2	0	0	0	.000
WILSON	0	0	0	0	.000
PENROSE	0	0	0	0	.000
PYBUS	0	0	0	0	.000
ADAMS	0	0	0	0	.000
MORGAN	0	0	0	0	.000

APLsauce continued from page 3

You are not permitted to use execute, unquote, and friends, nor to create functions from inside *EVAL* or use similar tricks to have APL execute the expression (or any part of it) directly. So *EVAL* must interpret the expression itself. As usual, branching is not permitted, but this time recursion is.

Entries should be dropped in the **mathNEWS** mailbox on the third floor or sent to userid rsjayasekera on Honeywell TSS, and must be in by Monday, 18 July.

Well, that's all for this issue.)OFF

MATHLETICS

BIZ-BALLERS

two week layoff...

BIZ—BALLERS GO STALE?

Special to **mathNEWS**

There are many rumours around campus that the two—week layoff for the BIZ—BALLERS has caused them to go stale. "This rumour is completely unfounded", explains public relations manager Charlotte Penrose, "in fact the only thing that has gone stale on the team is some of the players' breath!"

The temporary vacation has given the team a chance to re—group and analyze the first half of the season. There were definitely some outstanding performances and these are depicted in the statistics compiled by Stats Manager Nelson Tishcoff.

An exhibition game was held with the Short'n'Sassies to keep the BIZ—BALLERS in shape. It was a squeaker and went down to the last pitch of the game. Due to an illegal substitution in the last inning, Peter Noble's team had to forfeit the game. "It was a tough way to lose", says Pistol Pete, " but we were outclassed on the field the whole day." BIZ—BALLERS want to thank the Short'n'Sassies for a good game and a lot of fun and also wish to thank all the supporters who came out to play Sunday morning.

In the future everyone is looking forward to a challenge match against the Bits'n'Pieces. This is another math team consisting of faculty, staff, and grad students. The game is tentatively scheduled for Thursday, July 14. We hope you will all come out to cheer on the BIZ—BALLERS for the championship of the M&C building. "We've been waiting a long time for this one", says spirit manager Sue Burford, "we're gonna tear them into Bits and Pieces!!" Also, EDP Manager Keith Pybus is planning to sell programs at the big game.

Everyone is looking forward to the mathletic banquet at the end of the term. Most BIZ—BALLERS have agreed to attend, so come on out to the pub afterwards and you can collect the autographs of your favorite stars.

General Manager Sam Veffer is on an important business trip in the Bahamas during the two—week layoff and as a result we have no witty quotes from him.

silence is golden... GO BIZZIES GO..

for bizballer statistics, see page 5

Soccer

Amazing! Fantastic! Incredible!

What else can be said of the *Math* soccer team? This summer the team has put up its best showing ever by *winning* the A division regular season title. No easy *feat* indeed! A perfect 6—0 record was *compiled* by the *Mathies* against some very strong (and very weak) competition. Dennis Gould, our amazing goalkeeper, let in only three goals for the entire season while the forward line, spearheaded by Dom Posella, Chris Uttley and Tom Havlas, wiped out the competition with twenty—two goals. The Toronto Metros have even indicated they may hold a special training camp for *math* soccer trainees, although most team members seem headed for Manchester United upon graduation. The no—name defense is headed by Alistair Watson and Terry Dalke with occasional reinforcement from Pui—Ling Chan and Doug Poitier. The team is extremely strong in the mid—field with potential all—stars abounding. Jim Valliant, Joe Moosa and Stan Annas in the halfback positions line up to an unbeatable defense and powerful offensive unit. Forward lines abound in strength with ball controller Dan Li and nimble Colin Soares.

Utility Players, who are willing to play superbly in any position, include the bullish Steve Duncan, Mike Toohey and Mike Peate who all scored some very important goals this season.

Heading into the playoffs, team fans hope the team doesn't come out over—confident. After all, a number of the games had very close scores with hard work being the key to the Math win. Keep watching the *Mathletics* board for playoff dates. Let's have all you ball freaks out to cheer us on!

Junior Jock

PING PONG

W.Y. Yeong and I. Halim won the Mathsoc mixed doubles tourney. Michael Peate and Mariette Prouly came in second and Andy Mueller and Marnie Shaw came in third. Prizes were awarded to 2/3 of the contestants. This was due to the fact that only 3 couples competed in the tourney. The first prize was two tickets to the Supertramp concert and the second prize was two tickets to Kiss.

There will be a Mathletics banquet (semi—formal) on Friday July 22. This will be open to anyone who has participated in athletic events over the term in Mathsoc. Tickets will be going on sale fo $2.00 each shortly at Mathsoc. There will be a pub afterwards in the Math Faculty Lounge which will be open for everyone.

ATTILA LEADS ASSAULT ON WEAK PLATO BRIDGE DEFENCE

Today's problem is part of our series of classic matches from the past. This example brings together four of the most illustrious philosophers of all time.

The home team, the familiar duo of Plato and Socrates, are facing the celebrity guest team of Jean—Paul Sartre and Attila the Hun.

The four philosophers are debating the logical premise: All men are mortal. Socrates is a man. Therefore all men are Socrates.

NORTH(Socrates)
EAST(Jean—Paul Sartre)
SOUTH(Plato)
WEST(Attila the Hun)

Socrates(North) begins the bidding by espousing a weak theory of civil disobedience. An obvious indication to his partner that he isn't playing with a full deck .

Attila the Hun(East) responds with a brief but brilliant rebuttal of "Bullshit".

Plato(South) responds to his partner's bid by muttering something about "This is just a reflection of reality" and "We're all in a cave". His bid confuses just about everybody since the match actually took place in a brothel in downtown Athens.

Experts interpret Plato's weak bid as a signal to Socrates that he had better stop blabbering on about Civil Disobedience and come up with something new.

Jean Paul Sartre(West) responds to his partner's bid with "Life has no meaning. What is important is that we act."

Socrates(North) begins round two with a bid aimed at the impatient Attila, who by this time is threatening to tie Socrates to four chariots and drag his entrails back to Mongolia. In a brilliant dialogue Socrates proves to Attila that violence is just ignorance of the truth. Whereupon the impetuous Attila(East) responds to his partner's call for action by slitting Socrates' throat and wins the match for the celebrity team.

Devoted Philosophy buffs can learn a lot from this match. Note that none of the philosophers even so much as touched on the premise being debated. Socrates' dog—with—a—bone attitude towards Civil Disobedience cost him the match.

Socrates survived Attila's attack but a few years later his theory of civil disobedience led to his execution. If he'd kept his mouth shut he probably would have ended up with a government job with an indexed pension.

$15000

the chevron

Feedback

Dear **mathNEWS**,

Well, last week the Chevron (chevrag?) was reinstated. This week we look at their first paper. All but two pages are: ads, referendum, politics, *AIA* and of course gloating about how they have defeated the democratic process. The two pages containing non—garbage are on proficiency tests and movies. Two pages out of twelve, is this average? Further why is there so much space devoted to the *AIA*? In the centre they are given a massive amount of room, but who except a tiny minority care about the *AIA*? Why instead wasn't the Chinese Students' Association asked on their views? They have a much larger membership than the dubious *AIA*. Just because a large number of the Chevron staff are *AIA* members why should we have to listen to them? Or pay for their articles? If they are responsible staff they should realize how few on campus like such articles.

CSCTRAMP

Dear **mathNEWS**,

I guess everyone has seen the latest joke, the one that calls itself the Chevron (formerly the "free" Chevron). Supposedly it has now calmed itself, and is ready to produce readable material. Wrong! It's still as bad as ever. Why won't the AIA just dry up and go away? I, and I am sure many others, would really relate to a good university newspaper. Unfortunately, it doesn't look like we will be getting one. This last issue(?) was no more than the usual garbage shoved at us by the over—enthusiastic AIA. And what is the cause of all this? You! Most of us are too sick and tired by now to make a fuss anymore. We had our chance, and we blew it. The AIA has won.

This disgusting showing of apathy and lack of faith in our Student Council must cease.

I am appalled.

a concerned reader

Classified ADDS

WANTED
the name of the character who calls himself the Wizard.

the Lonely Programmer

LOST
the Lonely Programmer's temper. If found, please return it to him soonest.

the Wizard

Does anyone recognize the name ACPALIDWOR? If so reply to userid 'idallen'. Do you have a mailing address for a KEWILSON of Waterford??? Need it desperately.

TO LGMATTHYS:

O great and most ultimate absolute in the divine order of prime numbers, thou hast surely caused infinite (order N**n??) grief to thine devoted and sickeningly humble followers ("grovel, grovel"). WHY, o why, shouldst thou have forsaken your organizational goals and shirked thine multivariate responsibilities in order to pursue the earthly decadence of wine, women, hash functions, and depraved dope vectors???

How can our lives have any meaning when the Master of Dreabos can no longer create inspiration for our continuance?? When the 'Bun goes down at night we look to you for spiritual guidance to tide us through the long night of 370 assignments! Woe to us that believed so strongly that you, Keeper of the Holy Letters, had the omniscient power to get us all through to fourth year! Yea verily, unless thou makst a true and unyielding sacrifice upon the Leon Redbone Memorial, thine very car shall be towed away yet again! Do not attempt to burn us again, for we shall surely lock you in the same room at the ANIMAL FARM as that occupied by NoSlugs!!!

Sincerely,
HGA COLQUHOUN
(it's pronounced "Smith"!!)

110 jkaldridge thurs july 7th 3:58
dear **mathNEWS**

I am extremely disgusted with the present university ruling that people are not supposed to post anything on doors. The CSC had at least 6 posters ripped off its door by the janitorial staff last thursday (the same day as the meeting they were publicizing). I find that this policy is not widely followed since many of the staff's doors are covered with notices of one kind or another. I demand that this policy either be rescinded or practised without any regard as to who occupies the space on the other side of the door.

Let this persecution of the students be ended!!

I found the last issue of **mathNEWS** a bore with the exception of Sam'n'Tak and feedback.

The first article I wish to attack is the animal farm report. Although this column is somewhat amusing, I feel it was too long. If it had been split up into parts, it might been more enjoyable. Also, you would have an article for the next issue.

The article on 'Democracy Crushed' was a well—written article even though a few major points were overlooked. Anyway, A.R.White, I believe you've made a good point.

Finally, I would like to say something to John Lee Hooker. Bruce Mills may not be the best editor nor is he the hardest worker, but I don't recall your giving up free time to help out with the work or volunteering to be the editor. The way I see it, you have a personal grudge against everyone you know, because even I get rubbed the wrong way by you at times. You should become more civil in your mannerisms and maybe you will then be treated with a bit of respect.

Also, JJ's nose has nothing against your spare tire.

I would like to conclude by saying Bruce is a much more sociable person to be with, which is more acceptable to the world than a compulsive critic.

Anonymous

REPLY TO ANONYMOUS

Obviously, Mr./Miss./Mrs./Ms./It Anonymous must not enjoy his own company very much; in that during his entire letter almost all he does is to critize and then not have the decency (or guts) to sign his own name.

If this is an attempt at original satire, the effort is about as funny as a head—on collision.

I resent the personal attacks made on my character and the innuendoes made that I have not contributed to **mathNEWS**. When the paper for the summer term was being started up I did volunteer to be editor but wasn't picked due to lack of expertise in operating the computer and photon. Although I couldn't make it to the first issue I showed up to a production meeting for the second last issue only to find no one there. I appeared at the last production meeting only to find the editor didn't appear and didn't give anyone the password. I took the time to type in and correct three short filler articles; then I wrote up an original article blasting the ex—editor, Bruce Mills. Mr. Mills showed his respect for freedom of speech by releasing the file it was under, causing a lot of work to go down the drain.

In conclusion your preference for the company of Mills shows only your immenient lack of good taste and 'my spare' tire has nothing on the fatty deposits in your head

John Lee

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JJ Longe (signature)

In the last issue the new—look JJ (well, new—signature JJ) intended to write a variation on the Paul Simon theme "50 Ways to Screw your Chevron". However, after the "final offer" and the "final—final" offer (which I may add was a fine example of chequebook journalism) I became very disillusioned about the whole affair. Then there was the erratic behaviour of the recently dethroned Duke of Earl of Bunwich, who apparently left the country with a case of his favorite drink. Those factors added to personal problems and the fact that I did not know when **mathNEWS** would come to press caused my first absence from **mathNEWS** this term.

Well, I'd like to welcome our new editor Johann, who now plans to phototypeset whole pages of **mathNEWS**. I'd also like to name Allison Nowlan, userid "canowlan", as hack—of—the—week. Allison is an undergrad in Computer Science and a part—time employee in the **COMIT** project. She is so devoted to her work that last week when pulling her second or third consecutive _all-nighter_ she collapsed before a terminal on the sixth floor causing considerable damage to her face. She is now back on her feet and all hacks, **CSC** members and decent people wish her a speedy recovery. (Proofreader: She is fully recovered but seems to be pulling all—nighters again!)

A few comments on refundable fees. I don't like the idea of the Feds giving over $15000 to the _free_ **chevron** and such an action could encourage one to support refundable fees. I still believe that we should work within the system to bring about change in the Federation. That is why at this time I am supporting compulsory Federation fees. I am not opposed to the principle of voluntary fees, but I feel that an organization such as the Federation could not survive with refundable fees. I have seen the Societies, **OPIRG** and the _Chevron_ survive with refundable fees or no fees at all (as in the _Chevron_'s case) and I would support a refundable fee for these organizations.

As for the Federation, I'd like to see either a lower compulsory fee; another idea is to invest small portions of the fees to help build a strong student union in the future. These investments can be a reserve for any shortfalls when the Federation is possibly a refundable system in a few years when it is a more stable organization. Maybe we can have refundable fees in a few years when the Federation is more stable, but refundable fees would not be good now.

What This Article Is About

I was supposed to write an article for **mathNEWS** once the editor (Y0 for those not in the know) wrote his. He did and now I am. I still don't know why I am though.

I thought of writing it about all the things that I thought of writing about, a sort of indirect potpourri, and calling it "What this article might have been about". But that I felt would be of little interest to anyone, least of all me (I had visions of collapsing on the floor in one great mass of hopelessly entangled introspective analysis; not a pretty sight). I believe I also resolved that the further one removes oneself from the actual event, that is to say its recounting, the more one's prose becomes riddled with first person pronouns.

Since this very dissertation is guilty of introspection (ie [for those in my audience who didn't have their wheaties this morn] describing would—be text about an account of an event) we will pop our environment stack and plunge headlong and pell—mell into an account (already in progress) of one such event.

...a lady of indeterminant age marooned in Dunedin, Ontario. But she is not marooned at all. You see she has her horses and although the people in the area are scattered about the countryside like so many seeds they seem much closer than in the city. It is almost as if the physical distance has to be counterbalanced by a social closeness. Visiting city folk are always quick to note that everyone seems to know everyone else for miles about in the sticks (this is probably not the right word to use, but its getting late).

And then there is her dog. The rascal Dalmation without any spots that has, in spite of a bad back, managed to elevate the slaughter of groundhog to an art. The front yard is a veritable showcase for the wonders that nature is wont to display as she transforms groundhog into methane and a host of equally objectionable compounds. "One big science project" as a friend would put it. In a word the dog and his wares are, charming (perhaps you detect a hint of sarcasm).

But we digress. The horses have to be separated into two groups because of the young stud's recently acquired equuscidal tendencies towards his father "Charlie". Into the night! The animals are already loosed. We grab "Sam", a 42 year old "bastard" used solely to lead the other horses. The herd instinct is very strong in the equine world and with old Sam in tow we can exercise great control over the beasts.

Meanwhile the others fly about us as if in daylight. It somehow seems fitting that the horse, being a creation

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of Neptune, should feel at ease in the near total blackness of this night, hailing as he does from a place so often associated with the spiritual, emotional, and the dark and unknown.

Once the brutes are out and in their paddocks we amble back to the house that glows like some beacon in the sea of night. In the distance the whinnies of a delighted mare can be heard.

Inside she spins yarns into the wee hours of horses known through her years.

"... and the man beat the horse without end. Do you think it was anything but suicide when the horse bolted for a solid brick wall one day smashing both his own skull and that of his rider? Don't try to tell me that the horse is a dull animal. They just aren't!"

All this punctuated by that ridiculous Dalmation that "makes smells" whenever visitors are around.

After a while we (that's me and you by the way) hightail it out of there taking care as we go to avoid our canine friends' collection and their "atmosphere". Did someone say "press time!"?