## The Cheating Syndrome

I suppose every prof has some first-hand experience of students cheating with varying degrees of significance. However, these instances seem to happen sufficiently frequently and quietly that I suspect that most students do not have any first- or second-hand knowledge of them.

In view of this, and some recent discussions on the subject, I thought that the perusers of mathNEWS might be interested in a recent small example from a class of mine, which is perhaps more typical than cases of more newsworthy proportions. It seems that unbeknownst to John ${ }_{1}$, $\mathrm{John}_{2}$ got hold of a small program of John, 's, and submitted it as part of an assignment for partial course credit. The program in question involved some 80 lines of very straightforward FORTRAN, and the point of the assignment question was to examine the program output, not to produce the source program text. The announced course policy was that collaboration on assignments was allowed, indeed encouraged, but
that the documents submitted for marking should have been created by the submittor. How did John 2 get John',s programme? The bulk of computing for the course is done on the 'bun; however, because one part of the assignment called for using both the Honeywell and IBM machines, and because there usually are a number of unrepentant IBM users in the class, we provide a pool of about 10 WYLBUR initials and WIDJET accounts that students can use. John, had typed his program in under WYLBUR and saved it. $\mathrm{John}_{2}$ logged on later, and leafing through the files, came across John, 's programme. When I asked $\mathrm{John}_{2}$ about it, he readily explained what he had done, giving the pressure of the assignment deadline as the motivation. $\mathrm{John}_{2}$ is placed on ( n 'nacademic) probation for the remainder of his stay here, received zero for the assignment, and 10 years in the state penitentiary.

It will not have escaped the perceptive mathNEWS readers that John $_{1}$ had a responsibility in the matter by leaving his programme in not only a public file, but one in which other students were almost
certain to look. We, the class instructors, also share in the responsibility in the sense of providing computer access in which it is not possible to protect files.

One of the ways that a minor incident like this differs from one of 'newsworthy' size is that it is so pointless. The programme that was stolen could easily have been created in $1 / 2$ hour and the gain in course grade to $\mathrm{John}_{2}$ from the ploy was negligible. The embarrassment to him seems to have been considerable, and would surely be heightened by some publicity. ( $\mathrm{John}_{2}$ is a pseudonym.) The threat to his academic standing is significant. On a purely pragmatic basis, it would appear to be more a case of poor judgement than unethical behaviour. Cheating may be as rare as it is because the majority of students have better judgement, but I suspect that a major factor is that the vast majority of U of W students have too much self-esteem for such stunts. For them, a degree will be a personal achievement, rather than a commodity obtained by questionable means.

Prof. Bruce Simpson
Dept. of Computer Science

## Murmurs from Mathsoc

Last Monday, Mathsoc council decided to print a propaganda sheet, outlining the history and purposes of the society, to be distributed to the math students. The intended purpose of this pamphlet is to inform the students what they do, which should then get more students involved and therefore strengthen the society.

The pamphlet is due to be released next week sometime and will be published in the same style as mathNEWS. When asked whether this information could be printed as
part of mathNEWS, Sarah Metcalfe replied that mathNEWS was not good enough to print such things. She later agreed that we could print it as part of the paper only if no other articles appeared in the paper and if the mathNEWS logo did not appear anywhere in the issue. Another councillor, Ted MacNeil, mentioned that nobody takes mathNEWS seriously.

It seems that mathNEWS is not good enough for Mathsoc, yet they want to do little about improving it.

During the same meeting, Miss Metcalfe re-introduced a plan to install a permanent counter in the Mathsoc office in order to get a more business-like atmosphere there.

She then theorized that this change in atmosphere would get more people into the office to help do more work. The only unfortunate problem with this scheme is that it is just a variation of the present office set-up, and arranging the office as it is did little to get people into the office, so many people are doubtful about the effect this counter would make.

If you have any suggestions on how to improve the society, we would appreciate it if you could write them on a piece of paper and drop them into the grey (gray?) mathNEWS box in the third floor hallway.
G.M. Hains

## Faculty Notes

The deadline for dropping fall half-courses and/or withdrawing without academic penalty is Friday, October 19, 1979. Thereafter such matters become "exceptional" and are handled as described on page 7, '79/'80 "Circles" booklet (available from the Math Undergraduate office).

Spring ' 80 pre-registration will be held the week of November 7th for Co-op students who will be on work terms after Christmas. Details will be posted when finalized. You'll need your latest computer-produced timetable to pre-register.

The December ' 79 preliminary exam timetable will be posted outside the Registrar's Office in Needles Hall shortly (it will probably also be posted on the third floor bulletin Board). Conflicts must be reported to the registrar's office quickly.

In recognition of outstanding acedemic achievement during the academic year, the following students have made the Dean's Honours List (Spring '79):

Peter G. Blunden<br>Catherine L. Boyd<br>Grace Chan<br>Yih-Sheh Leo<br>Michael T. Longfield<br>Wing K. Lui

In recognition of outstanding academic achievement throughout their undergraduate careers, Sylvia Boyd (Combinatorics \& Optimization) and Wing H. Chan (Computer Science) will graduate on the Dean's honours list at Fall Convocation, Friday, October 19, 1979.

## $\lim e^{\text {rick }}$ <br> $x \rightarrow \infty$

I once knew an Odd Permutation;
That drove Inverses mad with frustration; It Closed up its Groups,
Banned Commutative Loops...
And rebelled against classification!

## Tutors Wanted

During the winter term 1978 (ass. ed: I hope he means 1980, that is, unless the CS department works on a different calendar than we do) the Computer Science Department will require a number of full time tutors in the Introductory courses CS $140 / \mathrm{CS} 118$. These tutors will be required to spend approximately 18 hours per week in lab contact with students, plus approximately the same amount of time in marking assignments. Both regular and co-op students interested in rearranging their academic terms and working as a full time tutor during the fall term are requested to discuss their interest in these positions with Jim Smith, MC 5093.

## We Get Want Ads

## For Sale

First 3 volumes of Knuth's "The Art of Computer Programming". This includes: "Fundamental Algorithms" (2nd edition), "SemiNumerical Algorithms", and "Sorting and Searching". The price is $\$ 20.00$ per volume. They have rarely been used and are in excellent condition. If interested, contact D.G. Kennedy ('bun userid dgkennedy).

## Cleaning Person Wanted

Once every two weeks, for three to four hours. \$15. Queen \& Fischer area (on bus route \#1). Call 579-3203 after 5.

## Help!

There is one position open for a student representative on the Curriculum Committee and one position open for a student rep on the Timetable Committee. These faculty committees discuss all matters to do with curriculum and timetables in math. Any interested students please coutact Sarah Metcalfe in the MathSoc office.

# Flag Football Game 

Thursday, October 11, 1979

## Math vs JOP

0-12
It was raining, the field was a mess, and we lost again. JOP scored twice in the early moments of the game before Math could settle down. One of the Math players, Afzal Dean, was put out of the game with a dislocated elbow after being hit by a JOP player. Our offense again found trouble in gaining the last few yards necessary to score sufficient points to win. Both teams were hampered by the conditions and all in all, it was a dirty game. This refers to the numerous infractions called against the JOP team which included calls for illegal blocking, tackling, interference, roughing the passer and in one instance, punching.

Dave Dennis

## Mathies Dunk Conrad Grebel

On Sunday, October 14, the Math innertube waterpolo team SEAHORSES played its second game and, as usual, came out ahead (or at least afloat) with an easy victory. There was a small turnout, but with such formidable players as John, Tom, Doreen, Greg and Linda (fuzzy blonde refugee from KIN), the SEAHORSES had little difficulty in swamping Conrad Grebel. New faces are always welcome at this co-ed recreational sport. Why don't you check the Mathletics notice board for rules and game times, and show up at the PAC pool for the next game. Or you can see Walter (the friendly Math IM rep) in Mathsoc, or send mail via the 'bun to beadie, for more information. Minimal swimming ability is required, so even "guppy" alumnus are welcome. The next game is against North 6 on Sunday, October 21 at 7:10 pm.
B. Eadie

## A Moment of Serious Thought

To set down the strange events of these past few hours here among the remnants of once so beautiful a majesty, that some future investigator of the curio of vain self-defeated races might pass a whimsical moment upon my own tale and that of my people, so little that be left of us.

Or ought I say, "them," for surely I am not so much to blame as they for the decimation that has befallen our world, even unto my beautiful Squigglemire Manor?

It seems so long ago that I last trod upon the sandy shores of this fair fine departed estate, time that hangs heavy even as the end approaches so closely as to chafe wearied rough skin long wrought to the flimsy trouble of a day once considered of difficulty, though it hangs now as meagre childhood memory to the crushed glory of our present incapacitation. Oh, how quickly waned those self-anointed glamours sunk deep drowning now in the mire of their own blindness! Time that even as precious memory grappled fading into a sickly rattling demise cannot in all of fond rememberance placate the terrorized mind whose eyes have leant upon the horror of these past, these last, few days.

So quiet had it seemed that evening; hid among the unruly clash of swamp studding marsh grasses even the petulance of the woodland life seemed dampened under the encompassing calm that hung shroudlike over the heavy August air like some great hesitant breath of evening's slow steadied slide toward indifferent slumber. What huge wrent emotion tossed away in the least moment of some omnipowerful spirit lay waiting, biding, beneath the hot veneer of summer's bedtime, hidden gnorling upon the edges of our puny senses yet struggling upon fate's fire-wrought angry chain to secure in blasting envelopment its damned escape?


The glorious forces of the VADKRITHROTCOTI have begun the march down the trail of destiny from which there is no returning! Soon a membership drive will begin! This Friday the famous VADKRITHROTCOTI Mass Lockout (a.k.a. the VADKRITHROTCOTI(M-L)...) will take place! See the classifieds in this week's Imprint for details! But, most important of all, the VADKRITHROTCOTI T-shirt has begun to take shape in the distorted neurons of your glorious yet humble leader! As soon as our Photographic Comrade (who commonly uses the pseudonym mftchir) gets his ass over to the VADKRITHROTCOTI Vigorous Headquarters and Reading Room, the final preparations will be made, and soon the whole campus will have the opportunity of visually displaying their intelligence to the world! Order yours soon! Mail your requests and suitable incriminating evidence to me, care of sjhull. Defend the Basic Interests of Ray!!! Vigorously Support the Democratic Activities of the VADKRITHROTCOTI!!!!

# REAL WORLD 100 <br> An Introductory Course 

## ASSIGNMENT \#3 - SOLUTION

Consider the monkey, the first counterweight, and pulley " 1 " as a large monkey climbing the second rope at half the rate of the original monkey. This is equivalent to the previous assignment. Therefore, the monkey and all counterweights rise equally, at $1 / 4$ the monkey's climbing rate. For the case with $n$ pulleys, the monkey rises at $1 / 2^{n}$ of his climbing rate. For infinitely many pulleys, the monkey climbs the rope but doesn't move. Conversely, if he releases the rope, it moves past him at a infinite rate!

## MIDTERM \#1

Around pulley " 1 " is a rope with a mass of $x$ grams at one end and a mass of $y$ grams at the other. Around pulley " 2 " is a second rope with pulley " 1 " at one end and a mass of $(x+y)$ at the other. If $x>$ $y$, and all weights are released at an equal height, what happens to the mass of $(x+y)$ ?

## Gridword is Brutally Beaten

It seems that we vastly underrated your skill with the last gridword: there were five completely correct solutions, at least one of which came in Thursday night! Many more people missed by one or two letters (obviously first-year courses don't cover grebes and samite in great depth any more... pity). The super solvers were (1) Rob VanOs and Jim Klachan, (2) Pat \& Verna from the Undergrad Office, (3) Kevin Librach, (4) Jan Gray and (5) Burloaf. Dean Edmonds, 'bun, Bernie Roehl, Neil Campbell and Angelo Callo were just one letter off the mark, while Dave Cunningham \& Tom Tippett's solution missed by two. Late mention to Dave Faught for a correct but overdue solution to the one before. Now comes the big moment... Going into APL, the editor hits " $? 4$ ", and the answer is: 1 ! Two T-shirts go to Rob VanOs and Jim Klachan. Congrats.
cartoons by Paul Robinson



## ACROSS

1 b Concrete tiles (8)
1 k It's easy to be mixed up (4)
2a Gem in deja vu (4)
2 f If and what if (4)
2 k A "big" "subroutine" (5)
3a "Helper of men" by definition (4)
3f Carefree, swaggering (10)
4a Body duct sounds as an invitation (6)
4i Direction (3)
4 m Lend me a "van Gogh" (3)
5d tain or ance (5)
5 j An ocean in the telling (6)
6a Oh green is open to be seen (5)
6 g Vice Admiral (2)
6 k Command to Rover (3)
7a What Rover uses for formatting? (3)
7 e Result of mapping (5)
71 Conway game (4)
8a Estimated Time of Arrival (3)
8 e Calculator display unit (3)
8 i Logic in the North (3)
8 m If the Fonz had no sleep? (3)
9a Else scrambled (4)
9 g What's in he ran off is almost DRANO (5)
9 m Contraceptive (3)
10c Unemployment Insurance Office (3)
10h Assembler register (2)
10k Not gluco? (5)
11a Men of the mountain, not JRRT spelling (6)
11 h George puts it over paint (5)
12a Wild grain (3)
12e Enemy after a fee-fie (3)
12 j Wasps sleeping give the wrong impression (6)
13a Lives on Cobblestone Court (10)
131 Broken cane is bad for skin (4)
14a McDonald greenery (5)
14 g The fortelling in women (4)
141 Mixed-up co-ed (4)
15b In a little while, we won't know who he is (4)
15 g Unnecessary Hall (8)

## DOWN

a2 Boy Scout pectin is dullee (8)
all A tip of the hat (4)
b1 Mixed ales cost less (4)
b6 X marks the choice (4)
b11 Half of a Washington town where shoe bees come from (5)
cl Hid each lightbulb contains thought (4)
c6 Process or result of assessment (10)
d1 The right name for a man (6)
d13 Non Registered Office (3)
e4 Up to some time (5)
el0 White skin $(3,3)$
f1 Really bad liver (5)
7 I'm at the head of the Mediterranean (2)
f11 The sauce is crying for help (3)
g1 Not a yes $(1,2)$
g5 Avoiding a Gabor's lemon drink (5)
g12 Note Back: British school (4)
h1 Little Lucy Locket (3)
h5 What little Ann is made of (3)
h13 Part of the home sounds a little resistant? (3)
il Catwoman's real name (3)
i7 To decree (5)
i13 Born like a patella (3)
j3 Prefix of the "Mirror,Mirror" Enterprise (3)
j8 ward or looker (2)
j11 Abnormal end of a program (5)
k1 Barker and Marshall (6)
k8 Flower has ring around it (5)
11 This animal won't shut up (3)
15 Conjuncation of mutually exclusive (6)
m1 American mag (10)
nl Beheaded Carnac (5)
n7 It's on the floor (4)
n 12 Broken nose smells of love (4)
o2 Monster of gore (4)
07 Advertised that you used N doors (8)
"ARTIFICIALMALEVOLENJE"

RUN FOR PIFFLE IS IN QUEUE POSITION 36
!EDIT:
WIDJET SUCKS!
! NON-NUMER IC
! CODE 03 (INSULT) - FILE SPACE HALVED
RUN FOR PIFFLE IS IN QUEUE POSITION 2.34005E+14
! FILE?
PIFFLE LST
! NOPE
!FILE?
END
ALL ARCHIVED FILES WILL BE DELETED! (Y/N) NO! ! !
!SAY PLEASE
PLEASE! PRETTY PRETTY PLEASE!!!
!USER TD?

# vW arts cenlre NEWS \$ uw arts centre NEWS 

## "18 Wheels" Rolls Into Town

Coming down the road with a cargo of toe-tapping tunes and high spirits is Tarragon Theatre's musical hit " 18 Wheels". The show is part of the UW Arts Centre's professional music series and will be on stage at the Humanities Theatre on Tuesday, October 30 at 8 p.m. There are still tickets left for the performance at $\$ 6.00$ (Students/Seniors $\$ 4.50$ ). Tarragon Theatre is touring " 18 Wheels" with the support of the Touring office of the Canada Council and with support from Mack Canada Inc. The tour will travel through Ontario, Manitoba,
Saskatchewan and Alberta.

## The Threepenny Opera

The University of Waterloo's Drama Department invites you to its major production, "The Threepenny Opera" by Bertolt Brecht. Based on John Gay's "The Beggar's Opera", it was Brecht's first, and probably still remains his greatest, success. The play takes place at the Theatre of the Arts from Thursday, November 22 to Saturday, November 24 and from Wednesday, November 28 to Saturday, December 1. Admission is $\$ 5.00$ (students/seniors $\$ 3.00$ ), or if you have a party or ten or more, admission is only $\$ 2.00$ per person. Tickets are available at the University's Main Box Office and the K-W Symphony Office. You can also reserve now for group tickets by calling the Drama Secretary at $885-1211$, ext. 3730.

Masthead。
The crowning accomplishment which indicated that this is the only thing left to screw up. There's really no excuse for sweating this much when we've had two weeks to do it. Hey, we're human! Now, if only I didn't have two midterms and an interview tomorrow... This week's staff was a smaller bunch than usual. It was a male preserve for the first time in my memory. Geoff Hains, the ass. ed., appeared to have suffered a minor embolism arounf $\mathbf{2 0 : 3 0}$, and left grumbling not long after. Jan Gray survived the trials of repeatedly Photonning the same things, as the editor simulameously created and corrected mistakes. David Welbourn, our most loyal drudge, filled the gap left by Jan's artsie-brained move of locking us out of the Photon room (Hence the funny-looking page headers \& such)... Adrian Jackson, in addition to his production work, handled the music, anecdotes, and piloted seeral cartoon projects which bombed. KGDykes, and his palindromic twin, DGKennedy (he of the Knuth boox), dcorated the pink wall, rappigg about HP Graphic Terminal escape codes in knowing tones... Much thanks to those corntributors who live on the other end of the Bunnywe11: jmrobinson (RW 100), Paul Robinson (god-sent cartoons), Prof. Simpson for our banner article, pckelly for the Thought column, sjhull for the VADKRITHROTCOTI blurb (thought you were reading the Chevrag, didn't you?) - and Bave Dennis and B. Eadie, the jorks... Alex White tells me to publicly decry the existence of fixed-size linear lists! Not know ing what the hack they are, I agree entirely. We at mathNwS know exactly what you're going thoaugh, what with interviews, midterms, classes AND sex all going on at the same time. kgdykes' advice to the once-frosh is: "What was that?" Need we say more, the man's a genius.

