Volume 44 Number 2

Friday, May 29, 1987

math NEWS

LookAhead

Cinema Gratis	
June 3	Another Fine Mess
	Revenge of the Nerds
June 10	A-Z
	Alfred Hitchcock's Frenzy
June 17	The Philadelphia Story
	Bringing up Baby
June 24	Scream of a Butterfly
	Local Hero
Fed Flicks	
May 29-31	Peggy Sue Got Married
June 5-7	The Mosquito Coast
June 12-14	Ruthless
DCS Courses	
June 1, 3	Intro. to WordPerfect
June 2	Intro. to WATFOR-77
June 2, 4	Intro. to SYSTAT
June 3-5	Intro. to Apple Macintosh
June 8, 9	Intro. to C
June 8, 10	Advanced WordPerfect
June 9-11	Advanced VP-Planner
June 10	Using Microsoft C
June 11	C Programming in Unix
June 15, 17	Sun Workstation Overview
Co-op Reminders	
June 4	Interviews begin
June 19	Rankings forms due, 4:30 PM
Graduating Students	
June 2	Grad Placement Orientation, 2:30 PM, Theatre of the Arts
June 9-15	Grad Photos (sign up by June 5)
MathSoc	
June 5	Blue Jays *vs.* Baltimore
Math Faculty	
June 1	Course Drop Deadline
June 4	1B Information Night, EL 101, 7:15 PM
mathNEWS	
June 15	Production night
June 19	Next mathNEWS out

ISSN 0705–0410

mathNEWS is normally a bi-weekly publication funded by and responsible to, but otherwise independent of, the Mathematics Society at the University of Waterloo. Content is the responsibility of the **mathNEWS** editor; however, any opinions expressed herein are those of the authors and not necessarily those of MathSoc or **mathNEWS**. Send your correspondence to: **mathNEWS**, MC 3036, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1 or to userid mathnews@watdcsu on USENET.

Editor: W. Jim Jordan

Prez Sez

I have many things to mention this week so I'll say things in a very brief form.

I would like to thank Brett Martin for taking on the massive task of MGC Chairman. *Grads get involved*, or else you may regret it for the the rest of your life. Look further in this issue for info on Grad pictures, Grad want ads, etc.

The university is again sponsoring a large Canada Day celebration. MathSoc is running the scavenger hunt. Come in to MathSoc and give us a hand with the event, or at least attend the celebration on July 1.

This weekend is Convocation (to which we can all look forward someday). The new Pink Tie (♂) will be on the building for this special event, so drop by this weekend and have a look.

You can look forward to seeing the Blue Jays on June 5, Grand Bend on June 20 and the Wine and Cheese on July 4. See the social column this issue for more details.

MathSoc T-shirts should be available *now*. Get yours in the MathSoc Office.

How's your suntan coming? Mine's terrible, but I'm finding my only free time is 2 o'clock in the morning. Anybody got an ultraviolet lamp?

Bill Tilford

Edlines

Convocation is a special time at the University. It is a time when the campus is cleaned up even more than usual, banners are hung from lampposts to announce a celebration, and the graduates who have an idea of the history and ceremony of higher education take their places as academics before beaming friends and family members. It is a coming-together of classmates for one last activity before becoming an official graduate (and you thought your 1A calculus section was big), and a going-away as friends when it is over. It is an acknowledgement that the graduates have achieved at least part of what the University hoped they would during their stay here, a recognition of academic achievement by the professors and administrators, and an initiation rite into learned society.

For the graduates who have their families here to watch them receive their degrees, we wish you a happy weekend of celebration. For those who do not have some of their families here, let us (figuratively) join your celebration. You have done well to finish your degree, and we wish you everything good in your future.

We take pride in being part of a University that turns out some of the best graduates in the country, one that still manages to do so despite a continuing squeeze on resources. You can take pride in that, too. Waterloo is a good University, a fighting University, and a quietly proud University. All of these are reflected in the quiet, festive way that Convocation goes on with "business as usual" around it. (Diplomas and transcripts now come in paper folders instead of the neat portfolios of two years ago; this is one of the ways that Waterloo's cost-fighting attitude is manifested at Convocation.)

If you are still working on your degree, take a few minutes this weekend to watch and reflect on the meaning of Convocation. Dream about your own Convocation and the moment when the hood is placed around your neck. Remember that this weekend's graduates were once in your position, and that the recognition that they get now will also be awarded to you. Your Convocation is not *that* far away, and you can eventually reach it if you want to.

W. Jim Jordan

And the Friday morning entertainment continues with...

Prof Quotes

Although the volume is still high, the prof-to-quote ratio is rather low. We could all use a little more variety–how about someone in Applied Math showing that their profs can be as silly as the Pure Math profs? Commit your favourite prof comment to human-readable form and drop it off in the MathSoc office or slip it under the **mathNEWS** office door (MC 3036). Enjoy!

"Don't ever use the word 'Eucable domain' outside of this room."
P. Hoffman, PMATH 344

"What is certain, apart from death, taxes, and the choice between Mulroney, Turner, and Broadbent, perish the thought..."
F. Aranda-Oradz, STAT 230

"What I've done, of course, is total garbage."
R. Willard, PMATH 430A

"The algorithm to do that is extremely nasty. You might want to mug someone with it."
M. Devine, CS 340

"Today we're doing Tukey's Lemma. That's why I have these two inspirational messages: 'Grant us deliverance' and 'TGINIPM – thank God I'm not in pure math.' The reason is it will take half an hour to just state it, and even then it has no real applications.
R. Willard, PMATH 430A

"If anyone is freaked out about having to use CMS or FORTRAN, we can talk about it sometime.
B.I. Henry, PHYS 263

"You walk down King St. and ask someone for a power series, and they give you $\sum_{a=0}^{\infty} a_n z^n$, so that's what you work with."
G.E. Cross, PMATH 352

"A stereotype is something that's right in general, but wrong in every single case."
M. Devine, CS 340

"Well, we're a quarter of the way through the term. Have you got a quarter of your money's worth yet?"
G.E. Cross, PMATH 352

"I'm sorry, sort of."
P. Hoffman, PMATH 344

"Has anyone had problems with the computer accounts?" (Student: "Yes. I haven't got one.") "OK, you can send mail to one of the tutors..."
E. D'Azevedo, CS 372

"Let me write it a little more cryptically."
John Baker, PMATH 351A

"9 is near enough 10. You can make these approximations in Physics–as long as no one is looking."
John Vanderkooy, PHYS 122

"In the long run, things will work out, but in the long run, we're all dead."
E. Lau, ECON 102

"If that makes any sense to you, you have a big problem."
C. Durance, CS 234

"Come up and talk to me. I get awfully lonely in my office."
G.E. Cross, PMATH 352

"Manipulate. I like this word. My wife doesn't like it."
J. MacKay, MATH 134B

"Nothing can be easier than abstract algebra."
P. Hoffman, MATH 234B

"Let's make ethanol green this afternoon."
R. Friesen, CHEM 124

"That's underlined, not crossed out."
Maarten van Emden, CS 443

"Directories are the non-leafy things that point to ordinary files."
Forbes Burkowski, CS 454

"If you'd like a series with lim sup 15 and lim inf $-\infty$, we can arrange that too. Or rearrange that, I should say."
John Baker, PMATH 351A

"You can write a small letter to Grandma in the filename."
Forbes Burkowski, CS 454

"Do animals have to die to make chalk? Good. I'm not killing any animals by doing this, 'cause I'd feel guilty if I was."
Charlie Colbourn, CS 466

"Of course, a relation doesn't *do* anything. A relation just *is*."
Maarten van Emden, CS 443

"Something's wrong here . . . **TILT!** . . . "
John Baker, PMATH 351A

ElseWhen

mathNEWS *ten years ago*

FEDS GET IT RIGHT–One of the positive things that the Federation, your so-called "anti-democratic" organization has been doing, is the operation of a student employment centre... One can register for various jobs available in the community and on campus... One of the amazing things about the centre is its effectiveness. The percentage rate of placements to the number of students registered is much higher than that found at the local community manpower centre.

SEEING HOW NOT TO DO IT–According to an announcement in a recent Saturday *Globe and Mail* business section, AT&T in the U.S. has ordered 85 IBM /370 model 3033 CPUs at a cost of over $320 million.

KELLY'S GETTING REALLY OLD–Well, for the third meeting of the semester the Computer Science Club came up with a good one. Kelly Booth, of the CS department here, gave a talk on computer graphics... Prof. Booth showed us that the software is much simpler than you might think. There are straight-forward equations for doing everything from rotation to translation and perspectives–much easier than expected...

Excerpted from **mathNEWS**. *Volume 14, Number 2, May 31, 1977.*

Fed Bellows

Summer is, without a doubt, the best school term–especially with the help of your two on-stream Fed Reps, Brett Martin and Craig Martin.

Besides lying in the sun and spending Friday afternoons at the Bombshelter, the Feds will be running tons of committees to look into ways of improving things for you. These include Housing, Student Relations, Athletics, and the future of Fed Hall. If you don't like the way things are going, or have ideas, your input is welcome at any of the meetings. Times and places of the meeting nearest you are available at the Fed Office (CC135). Criticisms and ideas can also be left on the Fed board outside the MathSoc office.

A copy of this year's and last year's Fed budget will be posted on the Fed board. You can leave any comments on this year's budget on the board before the next Fed meeting, Sunday, June 28, when the budget with any changes will be passed.

Did You Know?

–A campus centre variety store is coming.

–You can appeal a ban from Fed Hall or the Bombshelter.

Brett Martin

CSC Flash!

This week's new and improved CSC flash... maybe it'll even make it into the paper this time, whatd'ya think guys?

On the CSC front, elections have been held and the reigning executive for this term are:

President:	Rico Mariani
Pres.Vice:	Nancy Andraos
Secretary:	Marion Cunningham
Treasurer:	Paul Obeda

(The CSC wishes to point out that Treasurer, Secretary, Pres.Vice, and President all have the same number of letters in them and that this is A Good Thing.) (It was A Good Thing until **mathNEWS** went to proportional-spaced fonts.–ed.)

Things to note about this term's exec: we've got two (2) women on board and further they're (eeek) not in Math... that's two firsts for us. We feel that these are both Good Things.

And finally, miracle of miracles, the new (diverse) exec has implemented (drum roll please) *Office Hours*. Check out the CSC's office door (MC3037) to see when you can annoy your favourite CSC member. Drop by and discuss your CS problems (or other problems, or your last party, or your next party, or whatever) over a cup of tea. Sign up now, couch space is limited.

- Rico (that CS/EEE guy)

1B Math Info Night

On Thursday, June 4, 1987, starting at 7:15 PM in the Engineering Lecture Hall, Room 101, the Faculty of Mathematics is holding an 'Information Night for 1B Math Students.' Representatives from each Department and the Option programs will be making brief presentations. Following the formal presentations, there will be refreshments and informal discussions with faculty members. *All* 1B students are encouraged to attend in preparation for Winter/88 pre-registration which will take place during June 10-12. Come and find out what your choices are for your second year in the Faculty of Mathematics.

Attention Grads!

Two-hour orientation sessions for graduating co-op students who will be on work term in the fall are scheduled for Tuesday, June 2 and Wednesday, June 3. Sessions for HKLS and Mathematics students will take place in the Theatre of the Arts, on June 2 at 2:30 PM. Arts and Environmental Studies will attend sessions in Room 1020, Needles Hall, on June 3.

In these sessions attendants will:

- be registered to participate in 1987/88 Graduating Students Interviews,
- receive their Graduating Students Interviews registration kits,
- have the graduating interview process explained to them step by step,
- be shown how to properly complete a University and College Placement (UCPA) application form.

Additional orientation sessions will be conducted in the Fall for those graduating students who will be on campus. You will be advised as to the dates and locations of these at a later date.

(Courtesy Linda Kling, Co-operative Education and Career Services)

MGC

Attention all fourth year students (actually, mathies from *all* years are welcome)! Now's the time to start to prepare for the biggest bash of the year, the Math Grad Ball. The Math Grad Committee needs people to generate ideas, help out with fundraising for the Ball and class gift, as well as to help with the yearbook.

There's room for everyone so if you missed the meeting last Monday and you want to help, you can leave your name and number in MathSoc.

Grad Photos

Where Math Grad Lounge (5th floor)

When Tuesday, June 9 to Monday, June 15

Sign up in MathSoc (MC3038) anytime before Friday, June 5 for your exact photo session time; go early to get the best times.

For $15 you get 8-10 proofs and a huge 11×14 composite of your class. If you don't want your proofs, and you hate your class, you can arrange to have your picture taken for free. **Remember**, you need your composite to get any packages. People not wanting a composite, or wanting a second can also be accomodated.

Packages start as low as $30, and all include touch-ups. For more information on packages, see the display case.

Hand in your Grad Comment at the sitting. Grad Comment forms may be picked up in the MathSoc office when you sign up for your sitting.

If you don't arrange a sitting, you won't be in the yearbook!

Grad Yearbooks

Have you ever looked at an old picture of yourself and wondered how you could have ever looked so funny? Well, we can assure you of many embarrassing moments like that in years to come.

The Class of '88 yearbooks will be on sale from Monday, June 15 until Friday, June 19, outside the C+D and in the MathSoc office (MC3038).

They're only $15, the same price as last year's, but they'll be bigger and have *colour pages*.

Brett Martin

Want Ad Awards

Yes, folks, it's that time of term again: Want Ad Awards! With no further ado, here they are... (drum roll please...)

The "Red Stop, Green Go, Yellow Go Faster" Award: Ontario Ministry of Transportation, with "A knowledge of traffic signals would be beneficial but not necessary."

The "We're *not* sure" Award: Atomic Energy Of Canada Ltd. refers to "dipple bending magnets" in their job description.

The "Take your pick" Award goes to the Bank of Nova Scotia. They say, "To you as a co-op student, Scotiabank means a stable and dynamic environment."

IBM gets **the "Laying it on *really* thick" Award** for this gem: "IBM Computer Operators have an interesting and challenging career. They work at the very heart of the Data Processing World, scheduling work and operating the computer in all their various aspects. ...Two work terms in computer operations will provide the student with an excellent background for further work terms in Systems Programming, Applications Programming, Systems Design and Analysis." Whew!

Mitel Corporation gets an award for **"Telling it like it is,"** saying that, "The current [software] logs contain very little information and tend to be of little or no value."

The "I'm so happy I'm glowing" Award: Ontario Hydro is offering a job in their Radioactive Waste Management Section. Hmm...

The *Descriptus Interruptus* Award also goes to Ontario Hydro. Here is their ad in full:

"You will be a member of the Industrial Marketing Section which identifies, develops, delivers, and monitors marketing programs.

"Your job duties may involve assisting in development of an industrial marketing program, including: 1. Developing an"

The RCMP get **the "James Bond" Award** for this: "Successful applicant... will be required to pass a security investigation to the SECRET level."

The "Charles Atlas" Award goes to the Royal Military College of Canada, who say, "The telescope is portable, but requires strength to move."

"Subversion and Destabilisation" is the award given to Speedy Muffler King, who need a co-op in their MIS-INFORMATION CENTRE.

The "Quite a Mouthful" Award goes to the Town of Arnprior Recreation committee, where a pool supervisor will be responsible for job duty (a), job duty (b), job duty (c), ..., up to (o). Obviously they're looking for value for their money.

The "Hot-Wire" Award goes to the Dean of Science's office here at UW, who say that their high school liaison officer "must have, *or find*, a car."

Finally, **the "Tsk, tsk" Award** goes to the Center for the New Oxford English Dictionary, from whose ad we quote: "...a new method of text management that employs grammers."

CYBERman, S.E.X. Maniac, Center of Gravity, dwarf

Summer T-Shirts

YES. MATH T-SHIRTS ARE COMING!

Keep an eye out for this summer's design in the display case outside the C+D, within the next couple of weeks.

T-Shirts - approx. $11.
Sweat Shirts - approx. $20.

You will be able to order your shirt starting June 1. You are asked to pay for your shirt when you order it.

For more details, watch for posters, or come into the MathSoc office and ask!

Lisa

Late Posting

ACTIONTECHNOINFOTRONIXMACRODATA	
DEVICEWARE ENTERPRISES	**#F71814318**
SANITATION ENGINEER	**Co-ord: PDQ**
FROBISHER BAY	**Students:1**
Discipline(s):SE	**Level: ANY**

The technology of change is unfolding at Actiontechnoinfotronix-macrodata Deviceware Enterprises and our enterprising teams are bringing the future here right now.

You, the student, will, through the use of various alkaline and acidic media and highly application-specific peripheral devices, dynamically prepare horizontally aligned high-capacity surfaces for simultaneous multi-user access.

The candidate will require strong inter-personal skills for interfacing with the other members of the Surface Thin-film Application Real-World Laboratory Group of the Sanitation Engineering Divison. This valuable position will be an important stepping stone in the candidate's career in the dynamic new field of high-technology Sanitation Engineering.

Students with 3 or more work terms of experience are preferred.

Centre of Gravity *et al.*

In the SAC

G'day. This batch of ink is brought to you on behalf of the Student Advisory Council (SAC). Your representatives on the SAC are Brian Capstick, John Herbert, W. Jim Jordan and Paul Obeda.

The meetings are always open, and more people are welcome, so come out and see first hand what it is we do. Meetings are every second Tuesday at 4:30 in Needles Hall room 1029.

If you've got a problem or concern with the Department of Co-operative Education and Career Services (new name!), then come and see us. We can usually be found in the MathSoc office, so come on in and talk to us. If (God forbid) we're in class, then leave a message at the sound of the tone, and we'll get right back to you.

Brian Capstick

Summer Social Says

In preparing to alleviate some of the studying blues, MathSoc is preparing a number of activities to get everyone away from UW. The first one is a Blue Jays road trip on June 5 to see Toronto play Baltimore. June also has a road trip to Burgerfest in Grand Bend on the 20th, an experience that must be had by all. (Yeah!)

Other dates to remember are Canada Day on July 1 (volunteers needed), July 4 for the infamous Wine and Cheese, and the end-of-term pub in Fed Hall on July 31. Mark these days down now before some prof tries to book them up with midterms.

MathSoc is looking to its volunteers to make this a great summer. If you have any suggestions to add or are willing to help out, please leave a message for Social in the MathSoc office, or you can be daring and find us to make your suggestions.

Sue and John
Social Directors

A New Pascal Compiler

A new Pascal compiler has been developed whose error-checking capabilities go far beyond those of more conventional compilers. A sample of the capabilities of this new compiler follows:

```
Pascal Version 3.0 (7/26/38)   prog.p - page 1

001         program fuck_it (input,output);
                    ↑
☞ ERROR 193: offensive identifier.
002         const male = 1; female = 2;
                                     ↑
☞ ERROR 745: sexist constant declaration.
003         type
004           fruit = ( apple, pear, banana, tomato );
                                ↑
☞ ERROR 541: out of season in type declaration.
005           trees = ( maple, oak, elm, bicycle, yew );
                                     ↑
☞ ERROR 563: inconsistent identifier in enumerated type.
006           weekday = ( M, T, W, R, F );
                                ↑
☞ WARNING 924: non-standard Waterloo extension.
007           date = record
008                pick_her_up;
009                take_her_out;
                   ↑
☞ ERROR 613: dishonourable intentions in record type.
010                get_her_home;
011                end;
                   ↑
☞ ERROR 711: data description not sufficiently detailed.
           var
012              c, j: real;
                 ↑
☞ ERROR 186: c is constant.
013        begin
           ↑
☞ ERROR 116: Missing error message.
014           i := 1;
              ↑
☞ ERROR 221: Variable not declared.
☞ Smuggling variables is a criminal offense.
☞ ERROR 123: This code is boring.
015           j := 0;
016           while( j < 42 )do begin
                              ↑
☞ FATAL 7856^gh^*%AaFA42 C?mpiler internal
☞ l?gic err?r in thEuA%g^%4gggk
Compilation suspended.
Execution suppressed due to pending appeal.
0.0013 CP seconds compilation time.
```

The manual for this compiler will be available from WATCOM Publications. It will be published according to the usual conventions, as follows: (1) it will be offset-printed and spiral bound at a cost of $1.75 / copy; (2) it will be sold to students in the Bookstore for $15.90; and (3) it will be a required text for all courses taught by the authors.

kcabdeeF

Like, yo! Ever thought of doing "Proof quotes?" (*i.e.*, mathNEWS already has "Prof quotes.").

Not dwarf

[Proof quotes can obviously be included in Prof quotes. However, one of the three purposes of **mathNEWS** *is to entertain our readers, not to bore them. If you have an amusing proof quote, please feel free to submit it through the usual channels. Thank you, though, for your suggestion.–Ed.]*

Corollary of the Week

$$\lim_{n \to 0} \frac{8}{n} = \infty$$

Hence

$$\lim_{n \to 0} \frac{2}{n} = \infty$$

By symmetry we have

$$\lim_{n \to 0} \frac{2}{n} = \infty$$

whence

$$\infty = \infty$$

(Special case (LED display font): $\sqcup = \sqcup$)

Another useful result:

$$\lim_{n \to 0} \frac{6}{n} = \infty = \infty$$

Rotating by $\frac{\pi}{2}$ radians gives 6=9.

Exercises:

Derive $0 = 1$ from this statement, and continue by induction to prove that all integers are zero.

Derive $0 \neq 1$ from this statement, and continue by induction to prove that all integers are nonzero.

Really Hard Exercise (deep thought probably required):

Deduce the existence of rice pudding and income tax from this statement.

Center of Gravity

Editor's log, 1:55 AM, Tuesday, May 26. WATDCS is telling me that we've run out of Imagen money. We have $50 on our second account, but our second Unix userid maps to our first DCSaccount. Oh, well. The last nine articles have to wait until 10:00. It means I can write an editorial and a masthead without rushing to meet a laser printer deadline...

Tonight's valued contributers were Andrew Tron, Bill Tilford, Bret Reavie, Brett Martin, Brian Capstick, CYBERman, Camille Goudeseune, Center of Gravity, the Chuckler, David Leibold, Derfy's friend, dwarf, Frank Letniowski, Hymie, John Herbert, Lisa Falco, M. L. E., Nancy Andraos, Paul Obeda, Rico Mariano, Rob Harnden, S.E.X. Maniac, Stephen Smith and the Wizard of Id.

At least we got a decent-looking new mathNEWS logo this issue. Later this morning (and later in this masthead) we'll know (and describe) what else could go wrong with this issue. (Kerry, I could sure use that backrub now. Stuart, stop laughing.)

9:26 AM. Laser printer resources re-established. Can proceed on normal course.

10:25 AM. Typesetting jobs are stuck in the troff batch queue for at least the next hour. So much for going to CS 454. At least the C+D coffee isn't too vile this morning. I wonder if Fred can relate to this... 10:47 AM. Now second in the waiting queue. The first of three current jobs was submitted two hours ago. Coffee #1 is starting to wear off... 11:50 AM. First of our typeset jobs moves to first in the waiting queue. Start searching for a way to take a VAX into single-user mode without being root.

12:01 PM. Two of our jobs start to run as other lusers go to lunch. 12:48 PM. The last of our jobs gets spooled to the Imagen. 1:05 PM. The first of our jobs gets printed. 1:15 PM. The last of our jobs gets printed. 2:25 PM. The masthead is sent for printing.

Didn't Beckett write a play about this? Something like *Waiting for I/O*? Sigh. Hope you like the new logo and the page numbers. See you in three weeks.

NO RESPONSE FROM REMOTE UNIT

In our last instalment Watman and Duck had to face the burning question, "What Man?" thanks to the conniving interference by the **mathNEWS** writer. More specifically, Watman and Duck were supposed to have died last term.

"Wholly non-existence, Watman, what will we do?"

"Quick, Duck, let's get away before this maniac writer does us in! If we go fast enough, we can escape the rerun zone. Quick, to the Watmobile!"

In milliseconds, our heroes were speeding off in their vehicle. Since it was the summer term, they passed hot Ayr in no time. Soon, they were going so fast that they wound up twenty minutes into the future.

Soon, they stopped in front of the Needless 23 building. It was soon apparent that they were in an institution known as Big Time University, where punkers and other new wave denizens flourished.

"Wholly staples, Watman, where are the normal people?"

"Duck, there are no normal people on this earth. When was the last time you saw anyone with 2.3 kids?"

"Look, Watman, that door over there is shaking."

"Hmmm, shaking is derived from shake. And shake is part of shake and bake. And that means there's chicken involved. Yes, a Colonel. And sanders, even. That's it Duck, the sanders and physical plant staff must be doing some kind of maintenance. Let's see what they're up to."

As soon as Watman and Duck went through the door, they saw a **BIG** crowd uttering the deafening chants, "Math! Math! Math! Math!"

Suddenly, a **BIG** TV monitor began to glow. After some static, a head appeared on the screen.

"Wholly CBC, that looks like a crosshatch generator!" gasped Duck.

"Ohh, M-M-M-Math Topspace h-here.. bk bk is this a private party or can anyone join in? in?"

"What I w-want to know is, how many people are taking...

"PURE MATH!!!" interrupted the crowd.

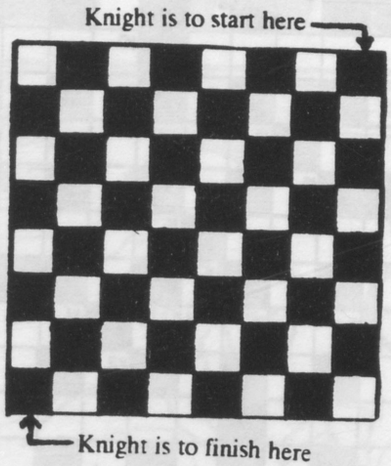
"Oooh... you said the P-word!"

As the crowd laughed, the deterministic duo grew even more nervous. "Wholly speech impediments, Watman, what is this all about?"

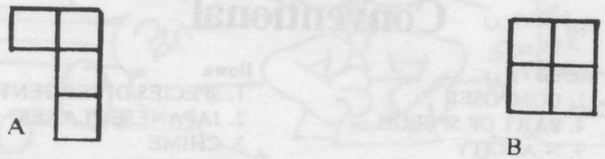
Mathematical Puzzles

This week's puzzles:

In the game of chess, a knight moves two squares in one direction and one square in a direction at right angles to the first direction. Given a chessboard with a knight in the upper right corner, is it possible to move the knight to the bottom left corner visiting each square exactly once?



Can an 8×8 chessboard be put together from 15 pieces of type A and 1 piece of type B (as shown below)?



the Wizard of Id

"Keep quiet duck...we're apparently at a topologists reunion. We must find out their plans, for it is bound to be nefarious. Besides, we could be tied up here a while."

Suddenly, Math c-c-cleared his t-t-throat and dictated to his captive audience. "I-I-I have a m-m-master plan. With y-your help, I will rid the C-C-C and D-D of all its cans of P-P-Pure Math–"

"You said the P-word!" cried the crowd!

A short, high-pitched "oopz!" squirted from Math Topspace, and he continued with: "we'll replace those cans with Confusionatorics and Obfuscation courses. Soon we t-t-topologists will rule this campus!! Remember: War is Peace, Freedom is Slavery..."

"And Ignorance is Strength!" finished the crowd.

"So... who are Watman and Duck?" asked M-Math.

"Beats us! Who are they?" asked the crowd in return.

"Ahhh, a pair of in-in-fidels. rzzzhzh Catch the Watman... Duck! Neutralise. Harm. Arrrrooooo!"

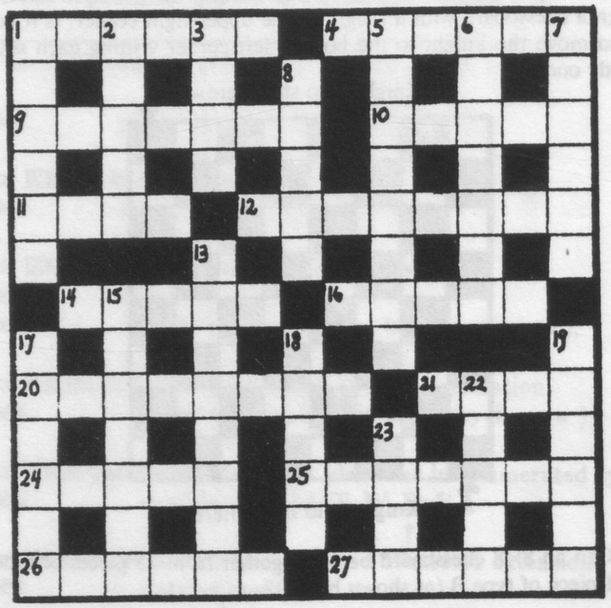
Suddenly, Watman and Duck found themselves being carried off at the hands of the Metro cops, which dragged them off to a nearby Klein bottle with other SttZ Resistance members.

Can our trustworthy twosome escape this predicament? What dastardly plan does Math Topspace have in store for the deterministic duo? Did Math Topspace have his evil hand in the change of the **mathNEWS** logo? Stay tuned for next issue's exciting episode...

na-na-na-na-na na-na-na-na-na na-na-na-na-na na **WATMAN!**

The Chuckler

GRIDXWORD

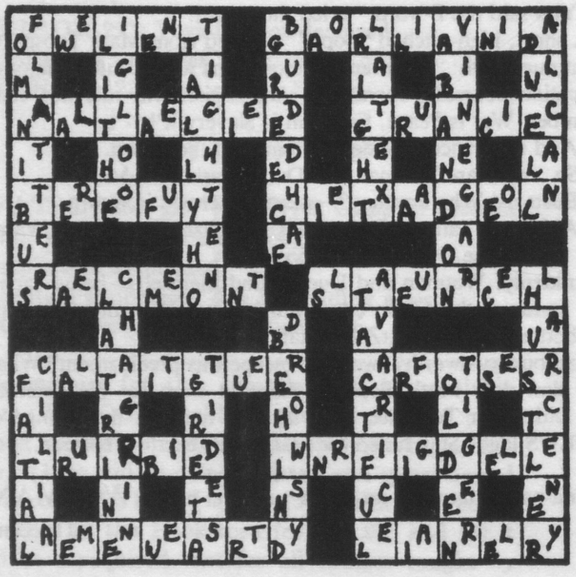


Submitter .....
Favourite Morning .....
Comment .....

Conventional

Across
1. COMPOSER
4. PART OF SPEECH
9. N.A. CITY
10. LEADER
11. A BODY ORGAN
12. PETROLEUM PRODUCT
14. STREAM
16. DEFAMATION
20. MUSCLE SOOTHER
21. DON
24. ROPE ARRANGEMENT
25. DRYNESS
26. CALM
27. LIGHT DIVISION

Down
1. SPECIES DIVERGENT
2. JAPANESE PLANES
3. CHIME
5. ENFEEBLED
6. A BUILDING
7. CUSHION
8. CANADIAN MUSICIAN
13. HUMBLE
15. ANSWER
17. COMPENSATION
18. A RELIGION
19. COLOURING IMPLEMENT
22. THROW OUT
23. FERTILE



Cryptic

Across
1. The Communist left. I have to get it from the source (6)
4. Surplus money for the seizure (6)
9. Huge fire in plant zero (7)
10. A number or a singer (5)
11. Nobleman sensor length (4)
12. About the origin of the supply (8)
14. Much precipitation to filter (5)
16. Total temperature of every ordinate (5)
20. Mimic the strange male suit (8)
21. Beg softly in the meadow (4)
24. Five in back near the bird (5)
25. Jill is a country? (7)
26. One who screams at the dialectually sounding colour (6)
27. Directly, a number catcher musical instrument (6)

Down
1. Nonsense to take the car left (6)
2. Hesitate up and down and about loudly to allude (5)
3. To a high degree, could change soundly (4)
5. The number is sane? (8)
6. The final good-bye is not real fun (7)
7. The sailor receives the bull's-eye (6)
8. The kid's letter of a certain pole (5)
13. The lone vice could be assault (8)
15. Dream-time shape taken away (7)
17. Non-conformant, like the platter (6)
18. Take off for a street tear (5)
19. The thief may prohibit dah's companion (6)
22. A certain king directed what to do in school (5)
23. Cry a little softly (4)

Life Above the GridComments

What a way to start! We had 29 submissions from last issue–with 16 correct and 1 other cryptic, and 6 correct and 3 other conventional. Of course, I expect much, much more from you (I'm very hard to please) and I know you can give it to me.

The winners of the week were randomly chosen by the binary GridWord binary GridWord selection method (yes, that's binary GridWord, folks). They be: conventional **Jill Fleischman** and cryptic **Intruder Alert** (sorry A.W., but you did make it to the final two!). They may pick up their prizes by gracefully meandering to the MathSoc office (MC 3038) and sweetly requesting their prizes of the kind MathSoc office worker (either that or barge in and demand the prize–I personally prefer this method).

To submit a solution, just write your name in the space provided and slide your completed grid under the **mathNEWS** office door (MC 3036) by the deadline, Monday June 15, 1987 at 19:00. Note that that gives you almost 3 weeks to get a solution in, so I expect a solution from all of you.

Correct Submitters: Anne-Marie & David, Sue Anderson, Alison & Stephen, Tricia & Dawnie, Robin Burroughs, Woody Tobias Sr., Penguin Lust, Gregsy & Juwie, Mark & Julie, W.Wiffen, The Toxic Avengers, Burke Pond, Randy Richard, Peter Found, Smurf, Scott Graney, Mansoor Haider & Mike Lunney, Laurine McAllister. Not Correct Submitters: Alan & Mark, FAB N, Kim Chandler & Scott Crawford.

Cereal Number: Product 19, Bran Flakes 101, Snow Crispies, Cap'n Crunch #2, Special K where $K = \int_0^{\pi} e^{-t^2} dt$.

Comments: Get thee to a punnery!, avec un crayon, bonus!. Like grids in the mN... so are the days of our degree, Where's Higgs?, Unoriginal GridWord Comment.

Okay, now you can get to work... but remember to listen to your prof... or not. BTW, I think umlaut died.

fletniowski