

PUG



PERIPHERAL

VOLUME 9 April 1986 75¢ No 4

NEXT MEETING OF THE PUG->>>>>MAY 18, 1986

There will be a class on tele-communications at 4:30 and a forth class at 5:00. The general meeting will begin at 6:30. Sapphire software will be available at the meeting.

Steve Szykiewicz won the Gram Kracker, but Dean did win a consolation prize. Congratulations Steve. This month's \$5 raffle will be for a Miniwriter III cartridge with a built in PIO port.

I got a summer job with PennDot out of Franklin so I will not be around until September, this being the case, contact Jonathan or Clayton for imperative club business. In a case of extreme importance you may contact me at:

Darren Leonard
P.O. Box 18
Tionesta Penna 16353

Norm Rokke won the Trivia contest and recieved a brand new Multiplan as a prize. Answers on on the back.

No Sapphire Software orders will be processed untill september. Sorry. I just made the dom's for May, June and August and THEY WORK POSITIVELY ABSOLUTLY are error free and 100% assembly to boot (boot er get it). They will be available at meetings only but you will be able to order them in september if you desire.

I would like to thank the following people whose assistance is invaluable: Dick Bies, Clayton Coleman, Scott Coleman, Clyde College, Marty Kroll Jr, Denny Senay, John Wilforth and Roy Carlson who take the dreaded job of mailing out the newsletters. My most sincere thanks for your contributions to the Newsletter, Club, Sapphire Software and for you assistance when I need it.

Treasurers report: Were not bankrupt.

NO JULY MEETING, NO JUNE OR AUGUST NEWSLETTER! Meetings for June and August will be on the third sunday of the month at about 6:00 pm.

If anyone is in an adventurous mood, I invite you to take a ride up to forest county and see some of the worst Tornado damage that has ever been recorded. Take Rte 8 north to RTE 62 north into Tionesta. Make a right when you come off the bridge and look for the Exxon stations. Make the left about 150 yards past it up a steep hill and follow it till you get to rte 666. Make a left and follow it to the bottom of the hill, your now in Kelletville. It is an awsome sight and only a 170 minute trip.

Have a nice and safe summer all, and see you in september> DFL

NEW PROGRAMMING LANGUAGES AVAILABLE

(This article was written by Doug Bohrer and Ted A. Bear. It appeared originally in a DEC Users Group newsletter, and then wound up in the February 1986 issue of The National 99'er by way of the Amarillo (Texas) 99/4 Users Group newsletter of November 1985.--What a grapevine, huh !)

APL, BASIC, COBOL, PILOT, FORTRAN, FORTH, and PASCAL are programming languages that are well known and (more or less) loved throughout the computer world. There are numerous other languages, however, that are less well known yet still have ardent devotees. In fact, these little known languages generally have the most fanatic followers. For those who wish to know more about these obscure languages -- and why they are so obscure -- we present the following catalog.

"C minus" - This language is named for the grade received by its creator when he submitted it as a class project in a graduate programming class. C minus is best described as a "low level" programming language. In general, the language requires more C minus statements than machine code instructions to execute a given task. In this respect it is very similar to COBOL.

"DOG0" - Developed by MIOT (Massachusetts Institute of Obedience Training), DOG0 heralds a new era of computer literate pets. DOG0 commands include SIT, HEEL, STAY, PLAY_DEAD, and ROLL_OVER. An innovative feature of DOG0 is "puppy graphics", a small cocker spaniel-shaped sprite that occasionally leaves deposits as it travels across the screen.

"FIFTH" - FIFTH is a precise mathematical language in which the data types refer to quantities. These data types range from CC, OUNCE, SHOT, and JIGGER to FIFTH (hence the name of the language), LITER, MAGNUM, and BLOTTO. Commands refer to ingredients such as CHABLIS, CABERNET, GIN, VERMOUTH, VODKA, SCOTCH, BOURBON, CANADIAN, COORS, BUD, EVER_CLEAR, and WHAT_EVERS_AROUND.

The many versions of the FIFTH language reflect the sophistication and financial status of the user. Commands in the elite dialect include VSOP, LAFITE, and WAITERS_RECOMMENDATION. The "gutter" dialect commands include THUNDERBIRD, RIPPLE, AND HOUSE_RED. The gutter dialect is a particular favorite of frustrated FORTH programmers who end up using this language.

"LAIDBACK" - This language was developed at the Marin County Center for Tai Chi, Mellowness, and Computer Programming (now defunct) as an alternative to the more intense atmosphere in the nearby Silicon Valley. The center was ideal for programmers who liked to soak in hot tubs while they worked. Unfortunately, few programmers could survive because the center outlawed pizza and Coca Cola in favor of tofu and Perrier. Many mourn the demise of LAIDBACK because of its reputation as a gentle and non-threatening language (all error messages were in lower case letters). For example, LAIDBACK responded to syntax errors with the message, "I hate to bother you, but I just cannot relate to that. Can you find the time to try it again?"

"LITHP" - This otherwise unremarkable language is distinguished by the absence of an "s" from its character set. Programmers and users must substitute "th". LITHP is said to be most useful for word prothething. This language was developed in San Francisco.

"REAGAN" - This language was also developed in California, but it is now widely used in Washington, D.C. It is the current subset of the international bureaucratic language known as DOUBLESPEAK. Commands include REVENUE ENHANCEMENT, STOCKMAN, CAP WEINBERGER, MALCOMB BALDRIDGE, CABINET, CHOP WOOD, LAXALT, and SCENARIO. WATT, BURFORD, and HECKLER have been removed from the current dialect while there are efforts being made to add MEESE. The operating system used is NEW_RIGHT and memory is designated THE_RANCH. COMMIES (program bugs) are removed with the GRANADA command. A REAGAN program commences with the LANDSLIDE command and terminates with SENILITY.

"RENE" - Named after the famous French philosopher and mathematician Rene Descartes, RENE is a language used for artificial intelligence. Creators say they have almost succeeded in getting a computer to think. One problem, however, is that each time the machine fails to think it ceases to exist.

"SARTE" - Named after the late existential philosopher, SARTE is an extremely unstructured language. Statements have no purpose, they just are. Thus SARTE programs are left to define their own functions. SARTE programmers tend to be boring and depressing and are no fun at parties.

"SIMPLE" - SIMPLE is an acronym for Sheer Idiot's Monopurpose Programming Linguistic Environment. This language was designed to make it impossible to write code with errors in it. The statements are therefore confined to BEGIN, END and STOP. No matter how you arrange the statements, you cannot make a syntax error.

"SLOBOL" - SLOBOL is best known for the speed, or lack of it, of its compiler. Although many compilers allow you to take a coffee break while they compile, the SLOBOL compiler allows you to travel to Columbia to pick up the coffee from Juan Valdez himself. Forty-three programmers are known to have died from boredom sitting at their terminals, waiting for a SLOBOL program to compile.

"VALGOL" - From its modest beginnings in Southern California's San Fernando Valley, VALGOL is enjoying a dramatic surge of popularity across the industry. VALGOL commands include REALLY, LIKE, WELL, Y\$KNOW. Variables are assigned with =LIKE and =TOTALLY operators. Other operators include the California Booleans, AX and NOWAY. Repetitions of code are handled in FOR - SURE loops. A sample program is shown below :

LIKE, Y\$KNOW (I MEAN) START

```
IF PIZZA      = LIKE BITCHEN AND
GUY           = LIKE TUBULAR AND
VALLEY GIRL  = LIKE BRODY$MAX(FERSURE)$2
```

THEN

```
FOR I = LIKE 1 TO UM$MAYBE 100
  BARF(I) = TOTALLY GROSS(OUT)
SURE
```

```
LIKE BAG THIS PROGRAM
REALLY
LIKE TOTALLY (Y$KNOW)
IM$SURE
GOTO THE MALL
```

VALGOL is characterized by its unfriendly error messages. For example, when the user makes a syntax error the interpreter displays the message "GAG ME WITH A SPOON!!!"

TIPS FROM THE TIGERCUB

833

Copyright 1986

TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213

Distributed by Tigercub Software to TI-99/4A Users Groups for promotional purposes and in exchange for their newsletters. May be reprinted by non profit users groups, with credit to Tigercub Software.

Over 150 original programs in Basic and Extended Basic, available on cassette or disk, only \$3.00 each plus \$1.50 per order for PPM, Entertainment, education, programmer's utilities, descriptive catalog \$1.00, deductible from your first order.

Tips from The Tigercub, a full disk containing the complete contents of this newsletter Nos. 1 through 14, 50 original programs and files, just \$15 postpaid.

Tips from The Tigercub Vol. 2, another diskfull, complete contents of Nos. 15 through 24, over 60 files and programs, also just \$15 postpaid. Or, both for \$27 postpaid.

Nuts & Bolts (No. 1), a full disk of 100 Extended Basic utility subprograms in merge format, ready to merge into your own programs. Plus the Tigercub Renegade, a tutorial on using subprograms, and 3 pages of documentation with an example of the use of such subprogram. All for just \$19.95 postpaid.

Nuts & Bolts No. 2, another full disk of 100 utility subprograms in merge format, all new and fully compatible with the last, and with 18 pages of documentation and examples. Also \$19.95

postpaid, or both Nuts Bolts disks for \$37 postpaid. Tigercub Fall Disk Collections, just \$12 postpaid! Each of these contains either 3 or 6 of my regular 93 catalog programs, and the reasonable disk space has been filled with some of the best public domain programs of the same category. I am NOT selling public domain programs - my own programs on these disks are greatly discounted from their usual price, and the public domain is a FREE bonus!

TIGERCUB'S BEST PROGRAMMING TUTOR
PROGRAMMER'S UTILITIES
BRAIN GAMES
BRAIN TEASERS
BRAIN BUSTERS
MANEUVERING GAMES
ACTION GAMES
REFLEX AND CONCENTRATION
TWO-PLAYER GAMES
KID'S GAMES
NOPE GAMES
WORD GAMES
ELEMENTARY MATH
MIDDLE/HIGH SCHOOL MATH
VOCABULARY AND READING
MUSICAL EDUCATION
KALEIDOSCOPIES AND DISPLAYS

For descriptions of these send a dollar for my catalog!
I found a bug in Nuts & Bolts #2 which prevents using HIGHCHAR after HEAVYCHAR. To fix it, remove the write-protect tab, MERGE OSKI.HEAVYCHAR RES 21000,1 SAVE OSKI.HEAVYCHAR, MERGE Replace write-protect tab.
While they last, and the supply is limited, I will sell a single Texas Instr. cassette interface cable for cassette software.
Did you ever wonder how a computer sort actually worked? This program will let you actually see it in

action. It will also show you the value being held in the temporary variable T6, and the total number of swaps and comparisons used. Then you can change any of the variables and resort. Try AAA in the last position or ZZZ in the first. You will find that some of the fastest sorts are not so fast when a list is already almost in sequence.

```
100 CALL CLEAR : CALL SCREEN
M(16) : FOR SET=2 TO 9 : CL
LL COLOR(SET,5,16) : NEXT SE
T : ON WARNING NEXT : RAND
OMITE
110 DISPLAY AT(1,1),ERASE AL
L :>>>TIGERCUB SORT WATCHER
<<< : "Wait, please - genera
ting" : random array... :
DIM A$(10),B$(10),S$(25,2)
120 FOR J=1 TO 10 : FOR L=
1 TO 3 : B$(J)=B$(J)+CHR$(I
NT(26*RND+65)) : NEXT L : X
=J : A$(J)=B$(J) : GOSUB 32
767 : NEXT J
130 DISPLAY AT(3,1),ERASE AL
L : ("1) BUBBLE SORT" : ("2) SH
AKER SORT" : ("3) SWAP SORT"
: ("4) SHUTTLE SORT" : ("5)
EASY SORT"
140 DISPLAY AT(13,1) : ("6) BU
ICK SORT" : ("7) RESORT SORT"
: ("8) SHELL SORT" : ("9)
RESERVED" : ("Type number of
choice"
```

```
200 DISPLAY AT(24,1) : "Change
10?" : ACCEPT AT(24,12),SIZ
E(3) : A$(1) : T=0 : GOSUB 10
20 : GOTO 190
210 DISPLAY AT(22,1) : " :
: GOSUB 1810 : M=6 : DN
K GOSUB 240,310,440,510,560,
660,860,920,25010 : DISPLAY
AT(22,1) : M : "SWAPS" : C : "CDMPA
NISONS" : C : M=0 : GOTO 100
```

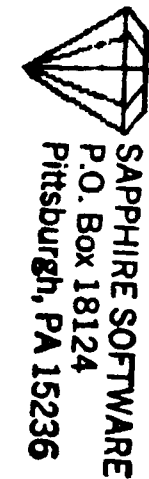
```
220 PER @BUBBLESORTA
230 CALL CLEAR : GOSUB 900
240 FOR J=2 TO M : C=C+1 :
IF A$(J)>A$(J+1) THEN 260
250 T=A$(J) : GOSUB 1050 :
A$(J)=A$(J+1) : T=J : GOSU
B 1020 : A$(J+1)=T : X=X+
1 : GOSUB 1020 : M=M+1 :
F=1
```

```
260 NEXT J : C=C+1 : IF F=
0 THEN 200
270 M=M+1 : F=0 : M=M+1 :
M=M+1 : GOTO 240
280 RETURN
290 REM #SHAKERSORTA
300 CALL CLEAR : GOSUB 900
310 M=M+1 : L=1 : M=M+1 :
R=M
```

```
320 M=M+1 : F=0 : FOR J=L
TO R : C=C+1 : IF A$(J)<
A$(J+1) THEN 340
330 T=A$(J) : GOSUB 1050 :
A$(J)=A$(J+1) : T=J : GOSU
B 1020 : A$(J+1)=T : X=X+
1 : GOSUB 1020 : M=M+1 :
F=1
```

```
340 NEXT J : C=C+1 : IF F=
0 THEN 410
350 M=M+1 : R=R-1 : C=C+1
: IF R=L THEN 010
360 M=M+1 : F=0 : FOR J=R
TO L : C=C+1 : IF A$(J)>
A$(J+1) THEN 380
370 T=A$(J) : GOSUB 1050 :
A$(J)=A$(J+1) : T=J : GOSU
B 1020 : A$(J+1)=T : X=X+
1 : GOSUB 1020 : M=M+1 :
F=1
```

```
380 NEXT J : C=C+1 : IF F=
0 THEN 410
390 M=M+1 : L=L+1 : C=C+1
: IF L=R THEN 410
400 GOTO 320
410 RETURN
420 REM #SWAPSORTA
430 CALL CLEAR : GOSUB 900
440 FOR J=1 TO M-1 : M=M+1
: R=J : FOR JJ=J+1 TO M :
C=C+1 : IF A$(R)>A$(JJ) THEN 7
```



```
450 M=M+1 : R=JJ
460 NEXT JJ : C=C+1 : IF R
=J THEN 480
470 T=A$(R) : GOSUB 1050 :
A$(J)=A$(R) : X=X+1 : GOSUB
1020 : A$(R)=T : X=X+1 : G
OSUB 1020
480 NEXT J : RETURN
490 REM #SHUTTLE SORT*****
500 CALL CLEAR : GOSUB 900
510 FOR J=1 TO M-1 : FOR JJ
=J TO I STEP -1 : C=C+1 :
IF A$(JJ)<A$(J+1) THEN 530
: T=A$(JJ) : GOSUB 1050 :
A$(JJ)=A$(J+1) : T=J : G
OSUB 1020
520 A$(JJ+1)=T : X=X+1 :
GOSUB 1020 : NEXT JJ
530 NEXT J : RETURN
540 REM #EASYSORT*****
550 CALL CLEAR : GOSUB 900
560 M=M+1 : D=1
570 M=M+1 : D=2*D : C=C+1
: IF D=M THEN 570
580 M=M+1 : D=INT(D/2) : C=
C+1 : IF D=0 THEN 630
590 FOR J=1 TO M-D : M=M+1
: Y=J
600 M=M+1 : Z=Y+D : C=C+1
: IF A$(Y)<A$(Z) THEN 620
: T=A$(Y) : GOSUB 1050 :
A$(Y)=A$(Z) : Y=Y : GOSUB 10
20 : A$(Z)=T : X=X+1 : GOS
UB 1020
610 M=M+1 : Y=Y-D : C=C+1
: IF Y=0 THEN 600
620 NEXT J : GOTO 580
630 RETURN
640 REM #QUICKSORTA
650 CALL CLEAR : GOSUB 900
660 M=M+1 : L=1 : M=M+1 :
R=M : M=M+1 : T=0
670 T=A$(INT((L+R)/2)) : GO
SUB 1050 : M=M+1 : Z=L :
M=M+1 : JJ=R
680 C=C+1 : IF A$(J)>T THEN
EN 710
690 M=M+1 : J=JJ
700 GOTO 680
710 C=C+1 : IF A$(JJ)<T THEN
HEN 730
720 M=M+1 : JJ=JJ-1 : GOTO
710
730 C=C+1 : IF A$(JJ)>A$(JJ
+1) THEN 760
740 C=C+1 : IF J=JJ THEN 7
60
750 M=M+1 : J=JJ+1 : GOTO 7
30
760 C=C+1 : IF J=JJ THEN 7
```

```
80
770 M=M+1 : M=A$(JJ) : A$(J
)=A$(JJ) : T=J : GOSUB 1020
: A$(JJ)=M : X=X+1 : GOS
UB 1020 : M=0
780 M=M+1 : J=J+1 : M=M+1
: JJ=JJ-1 : C=C+1 : IF JJ
=0 THEN 000
790 M=M+1 : T=T+1 : M=M+1
: ST(T,0)=J : M=M+1 : STI
1,1)=R
800 M=M+1 : R=JJ : C=C+1
: IF LCR THEN 670
810 C=C+1 : IF T=0 THEN 830
820 M=M+1 : L=ST(1,0) : M=M
+1 : R=ST(1,1) : M=M+1 : T
=T-1 : GOTO 670
830 RETURN
840 REM #RESORT SORT*****
850 CALL CLEAR : GOSUB 900
860 FOR J=2 TO M : C=C+1 :
IF A$(J)>A$(J-1) THEN 900
870 T=A$(J) : GOSUB 1050 :
FOR L=J-1 TO 1 STEP -1 : A
$(L+1)=A$(L) : X=X+1 : GOSU
B 1020
880 C=C+1 : IF A$(L-1)>T THEN
900 : IF A$(L-1)=T : L=L-1 :
C=C+1 : GOSUB 1020 : GOTO 900
890 NEXT L
900 NEXT J : RETURN
910 REM #MSELSORTA
920 CALL CLEAR : GOSUB 900
930 M=M+1 : M=N
940 M=M+1 : M=INT(M/3)+1
950 FOR J=1 TO M : FOR JJ
=J TO 1 STEP -M : C=C+1 :
IF A$(JJ)<A$(JJ+M) THEN 970
: T=A$(JJ) : GOSUB 1050
960 A$(JJ)=A$(JJ+M) : T=JJ :
GOSUB 1020 : A$(JJ+M)=T
: X=X+M : M=M+1 : GOSUB 1020 : M
EXT JJ
970 NEXT J : C=C+1 : IF M>
1 THEN 940 : RETURN
980 REM #RENEW ARRAYA
990 FOR J=1 TO 6 : A$(J)=00
(J) : X=J : M=A$(J) : GOSUB
0 1020
1000 NEXT J : M=6
1010 DISPLAY AT(24,1) : "A to
abort P E u pause" : RETUR
N
1020 RR=X
1030 IF RR>20 THEN RR=RR-20
: GOTO 1030
1040 CC=1-(X/20)*5-10*(0)*5-
(3)*0*(45-(X/30))*5 : DISPLAY
AT(1R,CC) : A$(X) : M=M+1 :
GOSUB 1060 : RETURN
```

```
1050 DISPLAY AT(22,14) : "T=
: T6 : M=M+1 : GOSUB 1060 :
: RETURN
1060 CALL KEY(3,K,SS) : IF
SS=0 THEN 1070
1070 IF K=65 THEN 130
1080 CALL KEY(3,K,SS) : IF
SS=1 THEN 1090
1090 RETURN
```

Don't try timing these sorts, because the screen display distorts the speed. Option 9 has been left open so that you can add your own favorite sort routine, in the same format, starting in line 25000.

These routines may not be the most efficient forms, and their names may not be correct. If you know better ones, let me know!

```
100 'BASKET WEAVING by Jim P
eterson
110 CALL CLEAR : M=1 : T=
2 : CH= "ASASASASASASASAS5F
80FF8000FF00FF" : ALL CHAR
(142,CH) : CALL COLOR(14,2,
W,13,2,W) : CALL SCREEMW
120 CALL HCHAR(1,1,143,768)
: CALL CHAR(134,CH) : CH=14
2
130 FOR C=1 TO 31 STEP T :
FOR R=1 TO 23 STEP 1 : CALL
HCHAR(R,C,CH) : NEXT R : F
OR R=24 TO 2 STEP -1 : CALL
HCHAR(R,C+1,CH) : NEXT R :
NEXT C
140 CH=ABS(1-CH+142)*135+(CH+
134)*143) : RANDOMIZE : T=T
NT(3)*M+2)
150 FOR R=1 TO 23 STEP T :
FOR C=2 TO 32 STEP T : CALL
HCHAR(R,C,CH) : NEXT C
160 FOR C=3 TO 1 STEP -1 :
CALL HCHAR(R+1,C,CH) : NEXT
C : NEXT R : CH=CH-1 : M
=INT(14*RR+31) : T=INT(3*RD
170 IF CH=134 THEN CALL COLO
R(13,2,W,11) GOTO 130 ELSE CA
LL COLOR(14,2,W,11) GOTO 130
```

```
180 OPEN #1:"OSKI.GRAPHPAGE"
:OUTPUT : PRINT #1:TAB(4)R
PTS(" _ ,75) : FOR J=1 TO 57
: J=STR$(J)
185 IF J<10 THEN J="0"J
190 PRINT #1:J:RPT$(",",30
191) : NEXT J
120 FOR T=1 TO 2 : PRINT #1
: " : : : FOR J=1 TO 77 : J=
STR$(J) : " : PRINT #1:SEG
(129,T,1) : NEXT J : PRINT
#1 : NEXT T : CLOSE #1
```

```
I 'TO PRINT A HANDY REFERENC
E CHART OF ASCII TO HEX CODE
- MODIFIED FROM READING-BERK
5 AUG 85
90 OPEN #1:"PID" : PRINT #1
:CHR$(27);CHR$(177);CHR$(5)
: " : : : FOR J=1 TO 63 : CALL Y
: I TO X+6 STEP 32 : FOR CH=
ARPA(1,76) : PRINT #1:Y : "
:CHR$(1) : " : Y6) : NEXT Y :
PRINT #1 : " : : NEXT X
```

```
180 CALL CLEAR : CALL MAGN
IFY(2) : RANDOMIZE : DISPLAY
AT(3,2) : "TIGERCUB SPEED TYP
ING TEST" : TAB(12) : "5E69"
: T=10
190 DISPLAY AT(5,10) : 100-T :
: X=INT(26*RND+65) : CALL SP
RITE(0,1,X,2,96,120) : FOR B=
1 TO 1 : CALL KEY(13,K,ST) :
ON (K+1)*2 GOTO 120,130
130 NEXT 0 : T=T+1 : GOTO 180
180
```

The following routine will create a B/V80 file named GRAPHPAGE, to be loaded into TI-Writer as a 7x57 grid numbered along the left and

bottom. Arrow keys can then be used to create a line graph of asterisks or what-avar, annotated with text as desired.

```
180 OPEN #1:"OSKI.GRAPHPAGE"
:OUTPUT : PRINT #1:TAB(4)R
PTS(" _ ,75) : FOR J=1 TO 57
: J=STR$(J)
185 IF J<10 THEN J="0"J
190 PRINT #1:J:RPT$(",",30
191) : NEXT J
120 FOR T=1 TO 2 : PRINT #1
: " : : : FOR J=1 TO 77 : J=
STR$(J) : " : PRINT #1:SEG
(129,T,1) : NEXT J : PRINT
#1 : NEXT T : CLOSE #1
```

```
I 'TO PRINT A HANDY REFERENC
E CHART OF ASCII TO HEX CODE
- MODIFIED FROM READING-BERK
5 AUG 85
90 OPEN #1:"PID" : PRINT #1
:CHR$(27);CHR$(177);CHR$(5)
: " : : : FOR J=1 TO 63 : CALL Y
: I TO X+6 STEP 32 : FOR CH=
ARPA(1,76) : PRINT #1:Y : "
:CHR$(1) : " : Y6) : NEXT Y :
PRINT #1 : " : : NEXT X
```

```
180 CALL CLEAR : CALL MAGN
IFY(2) : RANDOMIZE : DISPLAY
AT(3,2) : "TIGERCUB SPEED TYP
ING TEST" : TAB(12) : "5E69"
: T=10
190 DISPLAY AT(5,10) : 100-T :
: X=INT(26*RND+65) : CALL SP
RITE(0,1,X,2,96,120) : FOR B=
1 TO 1 : CALL KEY(13,K,ST) :
ON (K+1)*2 GOTO 120,130
130 NEXT 0 : T=T+1 : GOTO 180
180
```

The US newsletters are full of good editorials, reminding people that they had better pay for their freeware or there won't be anyone. I totally agree with that - but I can't help thinking that if there had been as much emphasis on paying for commercial software instead of pirating it, there would still be a lot more good programmers supporting the TI!

Jim Peterson
MEMORY FULL

Answers to last months trivia Questions

- 1) Cammie King
- 2) Steven Speilberg
- 3) Thomas Jefferson
John Adams
- 4) Thomas Woodrow Wilson
- 5) Diamond
- 6) Graham Chapman
- 7) 207
- 8) 5280
- 9) The Speed of Light
- 10) Albert Einstein

For Sale
New Ti-Writers
\$25 EA
JAMES ICKES
833-4768

Norm correctly answered #'s:3,4,8,9,10 to win his multiplan.

EDMONTON 99.ER USER GROUP
P.O. BOX 11983
ALBERTA CANADA T5J 3L1

