THE PUG PERIPHERAL

THE MONTHLY NEWSLETTER OF THE
PITTSBURGH USERS GROUP

JANUARY 1992

CLUB News By Gary Taylor

This month I will begin classes on Funnelweb. Funnelweb is more of an environment for the TI-994a than a program. It does so many things and contains so many features that several sessions will be needed to show you all that it can do. The current version is 4.41, and was placed in out library just a few months ago. There are not that many differences in the various versions numbered 4.0 or greater, so if you have a copy beginning with 4, you should be in great shape to follow along.

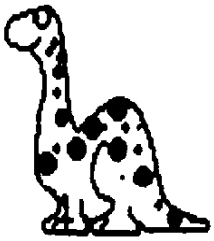
I will begin my class at 4 o'clock, and the first topic will be how to load it. It can be loaded from many different modules and programs. If there is time I will also start to discuss how to configure the menus. I have used this program environment for years, but in all that time I have never explored all the possibilities of the program. I am particularly interested in discovering the uses of the script files.

You may want to print out the documentation on loading and configuring Funnelweb in preparation for the class. I will try to use it as a guideline for the discussion. Susan will have a few extra copies of the disk for you if you want to get the latest version.

Mickey will again host her beginning basic class at 5:00. Susan will also have a few copies of a basic tutoring disk that Mickey is using for her class so that you can follow along.

At the main meeting we will have a demonstration of Legends II. This is a dungeon and dragon type game that is being sold by Asgard software for around $18. It is a sequel to their very popular Legends game. This is a very large program and uses all the features of the TI except speech. The sound and graphics are really cleverly done and you should enjoy the demonstration even if you are not into these types of games. I might add that it took me well over 100 hours to solve the game, so it is not something that you load up and expect to finish in one evening.

We are going to start a new program where the club will buy new software and give it to a member for evaluation. The member will review the program and write up an article for the newsletter and then demonstrate it at one of our meetings. The member will be able to keep the program as a sort of payment for the review and demo. The first program we have is called SGW. It is a program to redefine the chara files that are used to display character fonts on the screen. I will be looking for volunteers at the next meeting as we have several



programs that were picked up at the Chicago faire.

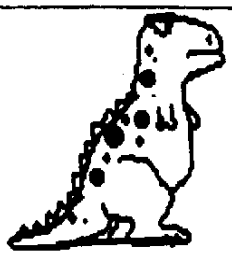
Our T-Shirt making project was not all that successful. Art is looking into using the same company that produced the shirts for the West Penn 99'ers. Theirs came out very nicely and only cost $5 each which included the cost of the shirt. Art will have more to say about this at the meeting.

Thanks again to Marlene Curran for stepping up to the job of newsletter editor. Audrey is still helping out but is enjoying a well deserved rest from the N/L editor duties.

EQUIPMENT FOR SALE

Present at this month's meeting, between 3:30 and 4:30, will be a young man with a system to sell. If you need any of the following equipment, he has it for sale.

Keyboard
TI Tape Recorder
P-Box with 32K expansion.
TI Phone Modem
Alpha Com Printer
Assorted Cartridges including games and TI Logo (all carts include user manuals)



FROM THE LIBRARIAN

by Sue Harper

If you can remember AND count, you know that this month's section of the library to review is section 7, the PERSONAL section. This area of the library has some very interesting programs, that some might put in another section, such as professional or utility, but they seem to me, the person who decides where things go, to be more of an individual choice type of program.

For instance, disk 7001 is an extended basic disk that holds a program called The Organizer. It will assist in managing files, generating reports organizing data, and preparing outlines. This type of program might be very useful to someone who has to organize a great amount of information for work, or for a student.

There are currently 68 disks in this section, and room for more when more fairware disks become available. Let me briefly review a few of the disks in the section to whet your interest.

7003 computes your biorhythm, contains a perpetual calendar some banking aids, a diet assist program, and even a VCR record keeper file. A very primitive data base program, CARDTREX is included.

7004 is for the genealogists among us, with files for hockey fans, too.

7010 has three DV80 files, an ad for CORCOMP, obviously out of date, a review of the TI speech, and SCR1, defined as (P)oke"in Around 3/26/84.

7014 is an excellent demonstration of the use of graphics and sprites in a program made available from the Nutmeg 99ers, Zodiac version 2.0.

7016 - TI Writer Homework Helper.

7018 - create your own mailing list.

7024 will help you write your will.

7030 - some interesting recipes.

7034 for ham radio operators.

7048 contains files from Earl G. Raguse, including his "famous" THEORY OF THE DARK.

7067 and 7068 contain Multiplan enhancements and a program called SIDE*PRINT which will print data sideways on your printer.

Well, as you can see, I skipped over a lot of the disks because I would like you to come to the meeting and take the time to find that perfect program just for you. And, if there is something you have that could be added to the library for the benefit of all the members, please contact me.

See you at the meeting. . . .

Graphics Comparison
by Marlene Curran

There are many ways to include graphics in your documents. There are also more than a few ways to print out the graphics you have on disk. Our club library has a wealth of images in Artist, CSGD, Page Pro, and other formats. Why not try some and enliven your documents.

While I have absolutely no talent as an artist, some of my documents look pretty professional after I add the creative efforts of those who HAVE talent by using and combining pictures and instances they have produced for the TI.

The following page (page 4) is a selection of graphic images produced by TI-Artist using Ken Gilliland's Disk of Dinosaurs (Asgard Software), and printed on TI-Artist and a little program from "Home Publishing on the 99/4A" by Harry Thomas Brashear. I've marked the pictures so you can see the different results you can get by varying density and size.

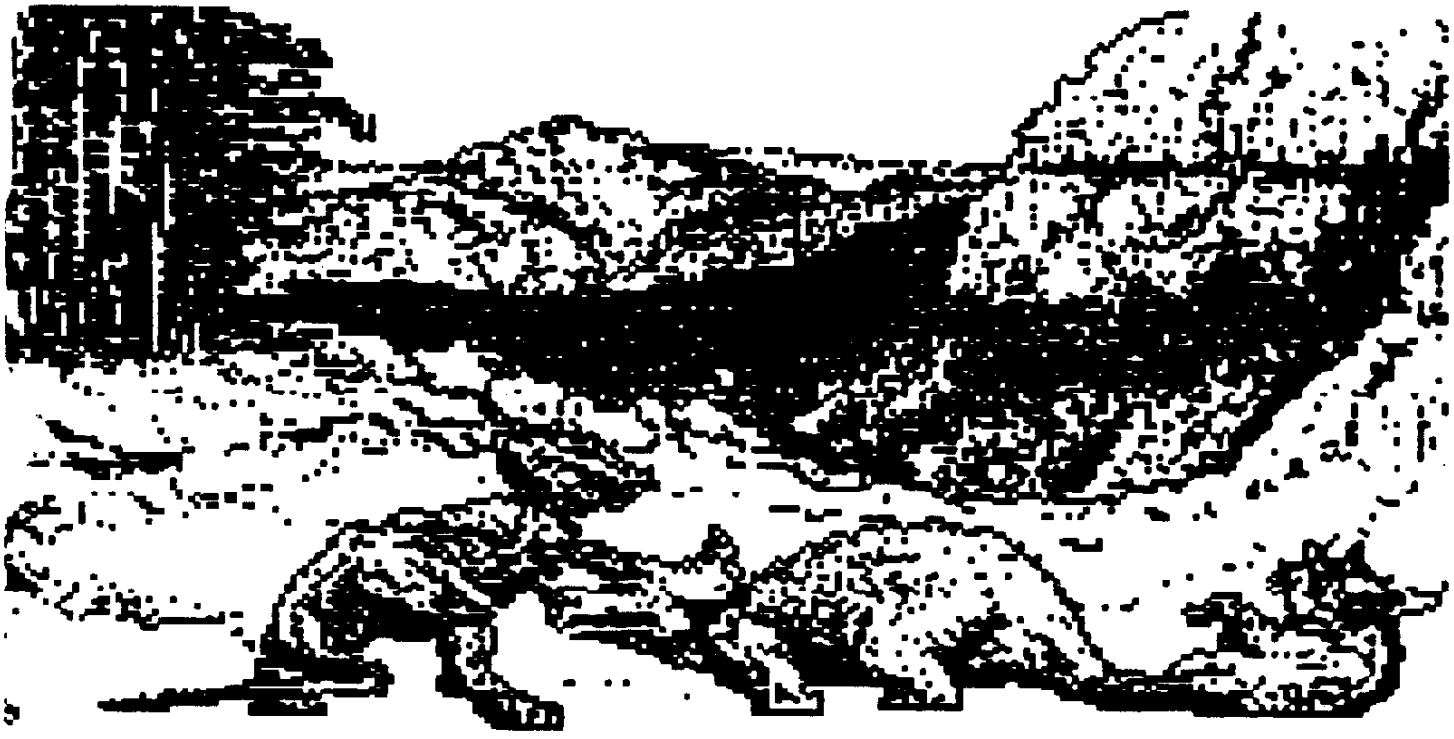
Next month I'll try to

experiment with some of the other programs available to produce interesting graphics on our machine. If you have done some artwork that you would be willing to contribute, please call your temporary editor. I'd love to print your work.

Home Publishing quad density.

TI-Artist double density.

TI-Artist low density.



MEETING MINUTES

LIBRARIAN'S REPORT:
Sue Harper delivered a report of the current state of the Library - and new additions - 'TIPPS MODULATOR" - Ricky's ONGV - Index - "Midi Story."

Von Ricky's On-Line-Grapevine
Rick Keppler (v.p.) was reported as out-of-town; so, Gary gave a report on the On-Line-Grapevine, our ear to the ground on commercial services and activities, software, etc.

BBS Report
A brief history of the BBS hardware was given - to wit - the present hardware in use on the BBS is JGMT's personal equipment, and it was recommended that the club purchase adequate equipment and free up Gary's stuff! (RAM disk, disk drive etc.) We were in the process of obtaining a Myarc HFDC card, which looks like a forlorn hope at this point! We had devoted approximately $200 for this purchase from a now more or less defunct Myarc vendor. (details to be worked out)

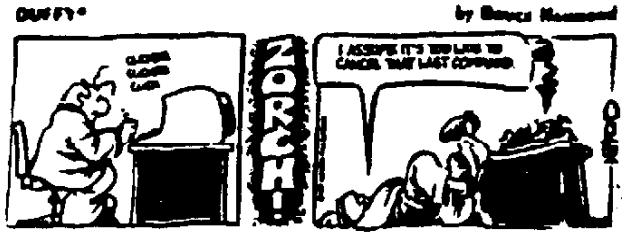
NEW BUSINESS:
A brief discussion of the Pittsburgh Atari Club Enthusiasts (PACE) swap meet held at the Chartiers Valley H.S. It was reported that 125 people and 25 vendors attended this meeting. Attending the meet brought us two new members, Joseph Cheronsky and John Skinger.

Frank Zic reported on the annual Hamfest held at the Meadows. This year it moved down the road a bit. "Smart drives," printers, large disk drives, dip switches etc were available!

CHRISTMAS GOODIES:
Gary Taylor acknowledged the donation of baklava, nut roll, and pizzelles by Mr. and Mrs. Nick Gramaticos. It hit the spot in holding appetites in check until after the meeting. Enjoyed by all present!

BINGO GAME:
1st game winner - Nick Gramaticos.
2nd game winner - George Dick.
3rd game winner - Dean King.
4th game winner - Mike Shayne.

MEETING ADJOURNED 7:45 P.M.



TIPS FROM THE TIGERCUB

No. 60

1 June 1990

My stock of Tigercub Software catalogs is depleted and it would not pay me to reprint it. Therefore I have released all copyrighted Tigercub programs, except the Nuts & Bolts Disks, for free distribution providing that no price or copying fee is charged. All of my Tigercub programs have been added to my TI-PD library and are cataloged, by category, in Supplement #8.

My three Nuts & Bolts disks, each containing 100 or more subprograms, have been reduced to $5.00. If I run out of printed documentation, it will be supplied on disk.

My TI-PD library now consists of 400 disks of fairware (by author's permission only) and public domain, all arranged by category and as full as possible, provided with loaders by full program name rather than filename, 8asic programs converted to XBasic, etc. The price is just $1.50 per disk(!), post paid if at least eight are ordered. TI-PD catalog #2 with Supplement #8, listing all titles and authors, is currently available for $1 which is deductible from the first purchase.

Here are a couple of improvements to the CHARFIX subprogram published in Tips #58.

```
29000 SUB CHARFIX(HX$())::DISPLAY AT(12,1)ERASE ALL BEEP:"Transliterate punctuation?" :: ACCEPT AT(12,28)SIZE(1)VALIDATE("YN"):Q$ :: IF Q$="N" THEN 29004
29007 CALL CHARVIEW(HX$())
29009 SUB CHARVIEW(HX$())
```

And call the routine by CALL CHARFIX(HX$()). These changes will avoid unwanted transliteration, and will make it possible to use CHARFIX for ASCII 24-31 and 144-159, if BXB has been merged in, as described in Tips #55.

The Spring 1990 issue of the TI=MES newsletter from England contained an interesting challenge - write a program in any language to find the lowest power of 7 which contains six sevens in succession, i.e. "777777".

The computer cannot solve this by any normal means, because it soon goes into scientific notation in which large numbers are rounded off into long strings of zeros. So, I taught it to multiply the old-fashioned way -

```
100 A$=STR$(7):: Y=1
110 Y=Y+1 :: FOR J=LEN(A$)TO 1 STEP -1 :: E=(VAL(SEG$(A$,J,1))*7+X)/10
120 X=INT(E):: F=(E-X)*10 :: X$=STR$(F)&X$ :: NEXT J
130 IF X<>0 THEN X$=STR$(X)&X$
140 IF POS(X$,"777777",1)<>0 THEN 160
150 A$=X$ :: X$="" :: X=0 :: GOTO 110
160 PRINT "7^";STR$(Y);"=";X$
170 PRINT #2:"7^";STR$(Y);"=";X$
```

The answer? 7^175=78011207912208158102404641279111807777771881820069326361118396985716038858440266717799156064716998933126566444073476322485547164949399539125864379437

My TI-99/4A computed that in 24 minutes. Would someone like to try it on the 9640?

Anyway, I thought I would use the same method to solve precise multiplication of numbers too large to be computed directly. This routine will multiply two numbers of up to 28 digits each, and will handle decimals and negative numbers. For even larger numbers, change the ACCEPTs to INPUTs and if necessary change the DIM. The only limitation seems to be that the result cannot contain more than 256 digits and even that could be programmed around.

```
100 DIM C$(100)
110 DISPLAY AT(12,1)ERASE ALL:"FIRST NUMBER?" :: ACCEPT AT(14,1)VALIDATE(NUMERIC)BEEP:A$
120 IF SEG$(A$,1,1)="-" THEN A$=SEG$(A$,2,255):: M=1
130 A=LEN(A$):: D1=POS(A$,".",1):: IF D1<>0 THEN A$=SEG$(A$,1,D1-1)&SEG$(A$,D1+1,255) :: D1=A-D1
140 DISPLAY AT(16,1)ERASE ALL:"SECOND NUMBER?" :: ACCEPT AT(18,1)VALIDATE(NUMERIC)BEEP:B$
150 IF SEG$(B$,1,1)="-" THEN B$=SEG$(B$,2,255):: M=M+1
160 Y=LEN(B$):: D2=POS(B$,".",1):: IF D2<>0 THEN B$=SEG$(B$,1,D2-1)&SEG$(B$,D2+1,255):: D2=Y-D2 :: D1=D1+D2 :: Y=Y-1
170 FOR J=Y TO 1 STEP -1 :: W=W+1 :: B=VAL(SEG$(B$,J,1)) :: FOR K=LEN(A$)TO 1 STEP -1 :: A=VAL(SEG$(A$,K,1))
180 D=(A*B+X)/10
190 E=INT(D):: F=(D-E)*10 :: C$(J)=STR$(F)&C$(J):: X=E :: NEXT K
200 IF X<>0 THEN C$(J)=STR$(X)&C$(J)
210 C$(J)=C$(J)&RPT$("0",W-1)
220 X=0 :: NEXT J
230 L=LEN(C$(1)):: FOR J=1 TO Y :: L2=LEN(C$(J)):: IF L2<L THEN C$(J)=RPT$("0",L-L2)&C$(J)
240 NEXT J
250 FOR J=LEN(C$(1))TO 1 STEP -1 :: FOR K=1 TO Y :: G=G+VAL(SEG$(C$(K),J,1)):: NEXT K
260 G=(G+H)/10 :: L=INT(G):: G=(G-L)*10 :: D$=STR$(G)&D$ :: H=L :: G=0 :: NEXT J
270 IF H<>0 THEN D$=STR$(H)&D$
280 IF D1<>0 THEN D$=SEG$(D$,1,LEN(D$)-D1)&"."&SEG$(D$,LEN(D$)-D1+1,255)
290 IF M=1 THEN D$="-"&D$
300 PRINT D$
```

And this one will add up an almost unlimited number of integers of almost any length - I haven't figured out how to get it to line up decimals.

```
100 CALL CLEAR :: DIM C$(100)
110 DISPLAY AT(12,1):"Input from D":" (D)isk or":" (K)eyboard?" :: ACCEPT AT(12,12)VALIDATE("DK")SIZE(-1):Q$ :: IF Q$="K" THEN 140
120 DISPLAY AT(12,1)ERASE ALL:"Filename? DSK" :: ACCEPT AT(12,14):F$ :: OPEN #1:"DSK"&F$,INPUT
130 X=X+1 :: LINPUT #1:C$(X) :: M=MAX(M,LEN(C$(X))):: IF EOF(1)<>1 THEN 130 ELSE CLOSE #1 :: GOTO 160
140 DISPLAY AT(12,1):"Press ENTER when finished":"":"" 
150 X=X+1 :: INPUT C$(X):: M=MAX(M,LEN(C$(X))):: IF C$(X)<>"" THEN 150 ELSE X=X-1
160 FOR J=1 TO X :: IF LEN(C$(J))<M THEN C$(J)=RPT$("0",M-LEN(C$(J)))&C$(J)
170 NEXT J :: FOR J=M TO 1 STEP -1 :: FOR K=1 TO X :: G=G+VAL(SEG$(C$(K),J,1)):: NEXT K
180 G=(G+H)/10 :: L=INT(G):: G=(G-L)*10 :: D$=STR$(G)&D$ :: H=L :: G=0 :: NEXT J
190 IF H<>0 THEN D$=STR$(H)&D$
200 PRINT D$
```

It is easy to invert characters on the screen simply by making the foreground 'on' pixels a lighter color than the background 'off' pixels - but when you make a screen dump, you will find that the 'on' pixels will print and the 'off' pixels will not.

Key this in, SAVE it by SAVE DSK1.INVERSE,MERGE and then merge it into any program by MERGE DSK1.INVERSE, call it at any point by CALL INVERSE(A,B), (A and B are the first and last ASCII to be inverted), and you will have all "on" pixels turned off and vice versa.

```
31111 SUB INVERSE(A,B):: FOR
 CH=A TO B :: CALL CHARPAT(C
H,CH$)
31112 FOR J=1 TO 16 :: CH2$=
CH2$&SEG$("FEDCBA9876543210"
,POS("0123456789ABCDEF",SEG$
(CH$,J,1),1),1):: NEXT J ::
CALL CHAR(CH,CH2$):: CH2$=""
 :: NEXT CH
31113 SUBEND
```

Here is a truly remarkable discovery by Bill Hudson of the Central Ohio Ninety Niners. This 2-line program will allow you to RUN a variable name such as - A$="DSK1.PROGRAM"

You can write lines before these, after these, and even RES the program. You can also use MOVE from GK UTILITY. You can do anything to the program you want as long as you don't change the content of line 1000. The line number does not even have to be 1000 BUT IT MUST BE THE FIRST LINE THAT YOU KEY IN!! You can merge a program into this but can't merge this into a program. Line 900 can also be a different line number but program execution must go to that line first.

```
900 FOR Z=1 TO LEN(A$):: CAL
L LOAD(-41+Z,ASC(SEG$(A$,Z,1
)),0):: NEXT Z :: CALL LOAD(
-41,LEN(A$)):: CALL LOAD(-44
,4+LEN(A$))
1000 RUN "DSKx.1234567890"
```

It's been a long time since we had a screen display to watch just for the fun of it, so here is a tinygram -

```
100 CALL CLEAR :: FOR SET=1
TO 14 :: CALL COLOR(SET,SET+
1,SET+2):: NEXT SET :: CALL
SCREEN(2):: CALL VCHAR(1,1,3
1,768)
110 FOR CH=32 TO 136 STEP 8
:: CALL CHAR(CH,"FF000000000
000FF"):: NEXT CH
120 X=INT(RND*6+1)*2-1 :: Y=
INT(14*RND+1)*8+32 :: FOR R=
12-X TO 12-INT(RND*X):: CALL
 HCHAR(R,5,Y,R)
130 CALL HCHAR(25-R,5,Y,R)
140 CALL HCHAR(R,28-R,Y,R)
150 CALL HCHAR(25-R,28-R,Y,R
)
160 ON INT(2*RND+1)GOTO 170,
190
170 CALL HCHAR(R,4+R,Y+8,25-
R*2)
180 CALL HCHAR(25-R,4+R,Y+8,
25-R*2)
190 NEXT R :: GOTO 120
```

This is a challenging and educational math puzzler which I think is unlike anything you have seen. I had it in my Tigercub catalog for 7 years and sold just 18 copies. If you don't want to key it in, it is now one of the programs on TI-PD disk No. 1300.1.

```
100 GOTO 140
110 J,K,ST,LV,I,R( ),T,X,A,A$
,X$,B,B$,C,C$,D,D$,AY,BY,B@@
,BY$,CY,CY$,C@$,Q,Y( ),Y$,X@(
),FLAG,R$,RL,Z,YY,D@( ),Q$
120 CALL CLEAR :: CALL CHAR
:: CALL COLOR :: CALL VCHAR
:: CALL SCREEN :: CALL KEY :
: CALL SOUND
130 !@P-
140 CALL CLEAR :: FOR J=1 TO
 12 :: CALL COLOR(J,5,16)::
NEXT J
150 CALL VCHAR(1,3,32,672)::
 DISPLAY AT(5,1):" @@$@*@+@
RITHMATIK @+@$@@ "
160 DISPLAY AT(10,1):" Selec
t difficulty level -": :" Ty
pe 1 or 2"
170 CALL KEY(0,K,ST):: IF ST
<1 THEN 170
180 IF (K<49)+(K>50)THEN 170
190 LV=K-48
200 CALL VCHAR(1,3,32,672)::
 FOR I=1 TO 4 :: RANDOMIZE
210 R(I)=INT(RND*10):: IF R(
I)=0 THEN 210
220 FOR T=1 TO I-1 :: IF R(I
)=R(T)THEN 210
230 NEXT T
240 NEXT I :: X=R(1)*1000+R(
2)*100+R(3)*10+R(4)
250 A=INT(4*RND)+1
260 ON A GOSUB 330,340,350,3
60 :: A$=X$
270 B=INT(4*RND)+1 :: IF B=A
 THEN 270
280 IF (LV=1)*(LEN(STR$(R(B)
/R(A)-INT(R(B)/R(A))))>2)THE
N 250
290 ON B GOSUB 330,340,350,3
60 :: B$=X$
300 C=INT(4*RND)+1 :: IF C=A
 THEN 300
310 IF C=B THEN 300
320 ON C GOSUB 330,340,350,3
60 :: C$=X$ :: D=10-A-B-C ::
 ON D GOSUB 330,340,350,360
:: D$=X$ :: GOTO 370
330 X$=" 1st " :: RETURN
340 X$=" 2nd " :: RETURN
350 X$=" 3rd " :: RETURN
360 X$=" 4th " :: RETURN
370 AY=R(B)/R(A):: BY=ABS(R(
C)-R(B)^2):: IF BY=0 THEN 38
0 ELSE 390
380 B@$="" :: BY$=" equal to
" :: GOTO 400
390 B@$=STR$(BY):: BY$=" mor
e or less than"
400 CY=ABS(R(D)-R(C)-R(B)-R(
A)):: IF CY=0 THEN 410 ELSE
420
410 CY$=" equal to" :: C@$="
" :: GOTO 430
420 CY$=" more or less than"
 :: C@$=STR$(CY)
430 DISPLAY AT(2,1):" I have
 a 4-digit number ":" with n
o two digits the":" same." :
: DISPLAY AT(6,1):" The";B$;
"digit is";AY;" times the";A
$;"digit."
440 DISPLAY AT(9,1):" The";C
$;"digit is ";B@$;BY$;" the
square of the";B$;" digit."
:: DISPLAY AT(14,1):" The";D
$;"digit is ";C@$;" ";CY$;"
the sum of the other digits"
450 DISPLAY AT(18,1):" What
is the number?" :: ACCEPT AT
(20,2)VALIDATE(DIGIT)SIZE(4)
BEEP:Q :: IF Q=X THEN 530
460 Y(1)=INT(Q/1000):: Y(2)=
INT((Q-1000*Y(1))/100):: Y(3
)=INT((Q/100-INT(Q/100))*10)
:: Y(4)=(Q/10-INT(Q/10))*10
:: IF Y(B)<>INT(Y(A)*AY)THEN
 570
470 IF BY<>0 THEN 490
480 IF Y(C)<>Y(B)^2 THEN 570
 ELSE 500
490 IF (Y(C)<>Y(B)^2+BY)*(Y(
C)<>Y(B)^2-BY)THEN 570
500 IF CY<>0 THEN 520
510 IF Y(D)<>Y(A)+Y(B)+Y(C)T
HEN 570 ELSE 530
520 IF (Y(D)<>Y(A)+Y(B)+Y(C)
+CY)*(Y(D)<>Y(A)+Y(B)+Y(C)-C
Y)THEN 570
530 DISPLAY AT(22,1):" Corre
ct!": : :: FOR J=1 TO 2 :: C
ALL SOUND(100,392,5):: CALL
SOUND(100,440,5):: CALL SOUN
D(100,494,5):: CALL SOUND(10
0,523,5)
540 NEXT J :: CALL SOUND(100
0,523,5,392,5,330,5)
550 DISPLAY AT(24,1):" Hit a
ny key"
560 CALL KEY(0,K,ST):: IF ST
<1 THEN 560 ELSE 200
570 DISPLAY AT(22,1):" Wrong
." :: CALL SOUND(900,30000,3
0,30000,30,400,30,-4,0):: DI
SPLAY AT(23,1):" Type A to t
ry again or Z":" to see the
number"
580 CALL KEY(0,K,ST):: IF ST
<1 THEN 580
590 IF K=65 THEN 450
600 IF K=90 THEN 610 ELSE 58
0
610 DISPLAY AT(22,1):" The n
umber was";X:" " :: GOTO 550
 :: END
```

Nearly out of memory and all out of ideas. More next time, maybe.

Jim Peterson

Tigercub

THE PUG MEETS
ON THE 2ND SUNDAY OF THE MONTH
AT WHITEHALL BOROUGH COMMUNITY ROOM
100 BOROUGH PARK DRIVE
WHITEHALL, PA.

CLASSES BEGIN AT 3PM
GENERAL MEETING BEGINS PROMPTLY AT 6PM

JAN 1992	
S M T W T F S	
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PUG OFFICERS		
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NL Editor:	Marlene Curran	412-531-3563

FEB 1992	
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SCHEDULE

3-4PM Questions, Problems, and Answers
4-5PM Loading Funnelweb with Gary Taylor
5-6PM Extended Basic with Mickey Schmitt
6PM-? General Meeting

DUES $15/YR

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