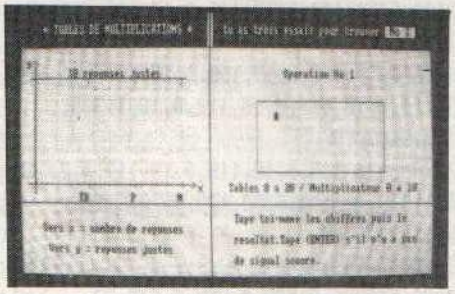
TABLES DE MULTIPLICATION

Pas la peine d'en faire une tartine : le titre explique bien ce dont il s'agit. Il y a 2 types d'exercices : la révision d'une table et une séance où l'élève fait à la fois les questions et les réponses avec des résultats graphiques à l'appui.
Le mode d'emploi est inclus dans le programme.

Claude PICO



Valable pour
CPC 464
CPC 664
CPC 6128

```
10 '------------------------ prese >LA
ntation ------------------------
20 MODE 2:GOSUB 80                >MJ
30 MODE 1:GOSUB 80                >MJ
40 MODE 0:GOSUB 80                >MJ
50 GOTO 100                       >RE
60 MODE 2                         >BK
70 INK 0,0:INK 1,26:BORDER 0      >VL
80 LOCATE 8,13:PRINT"E.A.O.":FOR tp >ZP
=1 TO 1100:NEXT:CLS
90 RETURN                         >TH
100 LOCATE 2,6:PRINT"TABLES DE":FOR >KC
 TP=1 TO 1000:NEXT:LOCATE 5,13:PRIN
T"MULTIPLICATIONS":FOR TP=1 TO 2000
:NEXT
110 LOCATE 10,23:PRINT"* C.Pico *" >CV

120 LOCATE 5,2:PRINT"4 X ?":LOCATE  >VV
15,5:PRINT"= 8"
130 LOCATE 3,15:PRINT"3":LOCATE 13, >QL
10:PRINT"7"
140 LOCATE 2,21:PRINT"? X 0 =":LOCA >DH
TE 10,17:PRINT"2 X 2 ="
150 FOR TP=1 TO 1500:NEXT         >TJ
160 READ I:IF I=-1 THEN RESTORE 180 >LM
:GOTO 200
170 READ M:SOUND 1,I*2,M,5:SOUND 2, >MR
I/2,M,5:SOUND 4,I,M,7:GOTO 160
180 DATA 478,20,379,20,319,20,379,2 >BQ
0,358,20,284,20,239,20,00,5,239,25,
319,20,253,20,213,20,253,20,239,20,
319,20,00,5,319,30,00,15,478,20,379
,20,319,20,379,20,358,20,284,20,239
,20,00,5,239,25,319,20,253,20,213,2
0,253,20,213,20,00,5,239,20,00,10
190 DATA 239,55,00,25,319,80,284,80 >JM
,319,20,358,20,379,20,426,20,379,40
,478,40,239,40,284,40,319,40,253,40
,239,60,-1
200 '------------------------ expli >RC
cation -------------------------
210 INK 1,0:INK 0,13:BORDER 3:MODE  >CY
2
220 LOCATE 30,2:PRINT"TABLES DE MUL >RF
TIPLICATIONS":LOCATE 28,3:PRINT"===
==========================="
230 LOCATE 5,5:PRINT"Ce programme p >JN
ermet d'apprendre les tables etape
par etape d'une maniere
240 LOCATE 5,7:PRINT"logique et pro >TA
gressive,en choisissant une des qua
tres options.
250 LOCATE 5,9:PRINT"Il est prevu p >PR
our etre utilise par l'enfant d'une
 facon simple et continue.
260 LOCATE 5,11:PRINT"Lorsque la ta >WP
ble sera apprise,les parents pourro
nt verifier le travail fait,
270 LOCATE 5,13:PRINT"en passant d' >RY
une etape a une autre,grace aux opt
ions proposees.Il sera donc
280 LOCATE 5,15:PRINT"preferable,au >JA
 depart,de choisir l'option A pour
permettre a l'enfant de
290 LOCATE 5,17:PRINT"progresser lo >WW
giquement,jusqu'au dernier mode,san
s retour possible,les trois
300 LOCATE 5,19:PRINT"autres ayant  >HK
un acces direct pour rappel ou veri
fication.
310 LOCATE 5,24:PRINT"Presser une t >UJ
ouche
320 CALL &BB06:PRINT CHR$(7)      >WC
330 CLS:LOCATE 5,5:PRINT"Apres avoi >TK
r tape un chiffre,s'il y a un SIGNA
L SONORE,cela signifie que le
340 LOCATE 5,7:PRINT"RESULTAT EST H >ZA
OMOLOGUE.Dans le cas contraire,appu
yer la touche <ENTER>.
350 LOCATE 5,9:PRINT"En option B,il >HC
 est demande de choisir la vitesse
d'affichage en secondes
360 LOCATE 5,11:PRINT"(de 1 a 9) po >HW
ur permettre de reciter la table.
370 LOCATE 5,13:PRINT"A la fin des  >XB
options C et D,le nombre d'erreurs
faites est affiche.
380 LOCATE 5,15:PRINT"L'option D es >MW
t une suite de 10 multiplications l
aissees au choix de l'uti-
390 LOCATE 5,17:PRINT"lisateur(mult >PN
iplication par 0 possible).Au trois
ieme essai,si le resultat
400 LOCATE 5,19:PRINT"n'est pas tro >MB
uve il s'affichera tout seul.Les re
ponses sont visibles sur
410 LOCATE 5,21:PRINT"un graphique  >JH
simple,le but etant de ne pas depas
ser la ligne Tres Bien.
420 LOCATE 5,24:PRINT"Presser une t >UT
ouche
430 CALL &BB06:PRINT CHR$(7)      >WE
1000 '------------------------- me >XD
nu ---------------------------
1010 CLS:INK 1,0:INK 0,13:BORDER 3: >NP
MODE 2:LOCATE 40,3:PRINT"MENU
```


```
1020 LOCATE 38,4:PRINT"--------"                    >ZK
1030 LOCATE 14,8:PRINT"Deroulement                  >BF
normal du programme":LOCATE 60,7:PR
INT CHR$(24)"          "CHR$(24):LOC
ATE 60,8:PRINT CHR$(24)" taper A "C
HR$(24):LOCATE 60,9:PRINT CHR$(24)"
        "CHR$(24)'--- en inversion
 video(fond   noir)
1040 LOCATE 14,12:PRINT"Recitation  >GT
de la table":LOCATE 60,11:PRINT CHR
$(24)"          "CHR$(24):LOCATE 60,
12:PRINT CHR$(24)" taper B "CHR$(24
):LOCATE 60,13:PRINT CHR$(24)"
    "CHR$(24)
1050 LOCATE 14,16:PRINT"Demande l'i  >WZ
ntroduction du resultat":LOCATE 60,
15:PRINT CHR$(24)"          "CHR$(24
):LOCATE 60,16:PRINT CHR$(24)" tape
r C "CHR$(24):LOCATE 60,17:PRINT CH
R$(24)"          "CHR$(24)
1060 LOCATE 14,20:PRINT"Entree de t  >YX
ous les chiffres":LOCATE 60,19:PRIN
T CHR$(24)"          "CHR$(24):LOCAT
E 60,20:PRINT CHR$(24)" taper D "CH
R$(24):LOCATE 60,21:PRINT CHR$(24)"
        "CHR$(24)
1100 '------------------- definitio  >XE
n fenetres ---------------------
1110 WINDOW #1,1,36,6,17 'fenetre h  >RZ
aut gauche
1120 WINDOW #2,39,68,7,18 'fenetre   >TR
haut droite
1130 WINDOW #3,66,80,7,18 'fenetre   >TM
haut droit (complement pour resulta
t)
1140 WINDOW #4,42,80,20,40 'fenetre  >TC
 bas droit
1150 WINDOW #5,1,36,22,40 'fenetre   >RF
bas gauche
1160 WINDOW #6,1,36,20,21 'fenetre   >RE
milieu gauche
1170 WINDOW #7,1,36,20,40 'fenetre   >RH
couvrant milieu et bas gauche
1200 '--------------------- choix d  >XF
e l'option ---------------------
1210 GOSUB 21000                     >CD
1220 GOTO 21020                      >UA
1230 '---- affichage homologue de l  >XJ
'option en inversion video -----
1240 IF OPT$="A" THEN LOCATE 61,8:P  >BG
RINT CHR$(7);"   A   ":FOR tp=1 TO
500:NEXT
1250 IF OPT$="B" THEN LOCATE 61,12:  >CE
PRINT CHR$(7);"   B   ":FOR tp=1 TO
 500:NEXT
1260 IF OPT$="C" THEN LOCATE 61,16:  >CM
PRINT CHR$(7);"   C   ":FOR tp=1 TO
 500:NEXT
1270 IF OPT$="D" THEN LOCATE 61,20:  >RP
PRINT CHR$(7);"   D   ":FOR tp=1 TO
 500:NEXT:GOTO 1300
1300 '---------- tableau commun pou  >XG
r toutes les options -----------
1310 CLS:FOR y=1 TO 40:LOCATE 37,39  >BE
:PRINT CHR$(149):NEXT
1320 ORIGIN 0,110:DRAW 800,0:ORIGIN  >VP
 0,350:DRAW 800,0
1330 LOCATE 1,1:PRINT CHR$(24);SPAC  >KF
E$(36);CHR$(24):LOCATE 1,2:PRINT CH
R$(24);"    * TABLES DE MULTIPLICAT
IONS *   ";CHR$(24):LOCATE 1,3:PRIN
T CHR$(24);SPACE$(36);CHR$(24)
1340 LOCATE 38,1:PRINT CHR$(24);SPA  >ZW
CE$(43);CHR$(24):LOCATE 38,3:PRINT
CHR$(24);SPACE$(43);CHR$(24):IF OPT
$="D" THEN 20000'----------pour com
plement tableau No4
1350 '--------------- tableau commu  >YB
n pour No1,2,3 -----------------
1360 LOCATE 38,2:PRINT CHR$(24);"    >RB
   TABLE DE MULTIPLICATION PAR:
      ";CHR$(24)
1370 CLS #5:LOCATE 14,22:PRINT"TABL  >KD
E DE :"
1380 NBC=2:x=24:y=22:GOSUB 21400     >AF
1390 TA=VAL(ch$)                     >LG
1400 IF TA<1 OR TA>20 THEN 1370      >WL
1405 IF TA<10 THEN LOCATE 25,22:PRI  >PH
NT CHR$(128)
1410 FOR tp=1 TO 750:NEXT:CLS #5     >ZB
1420 x=21:IF LEN(TA$)=2 THEN x=x+1:  >UY
PRINT SPACE$(x)
1430 GOSUB 21500                     >DC
1440 '-------------option pour dire  >YB
ct tableaux No2 ou 3 -----------
1450 IF OPT$="B" THEN 10000          >TX
1460 IF OPT$="C" THEN 15000          >TE
5000 '----------- tableau No1 et su  >XH
ite sans option ----------------
5010 FOR MU=1 TO 10:PRINT#2,TAB(10)  >FE
;TA;CHR$(120);MU;TAB(22)"=";:PRINT#
3,TA*MU
5020 PRINT:NEXT                      >LW
5030 LOCATE 48,22:PRINT"Pour contin  >XP
uer --->";CHR$(24);" S ";CHR$(24)
5040 GOSUB 21300                     >DB
5050 IF tou$="S"THEN PRINT CHR$(7):  >XU
GOTO 10000 ELSE 5040
10000 '---------------------- table  >CG
au No2 -----------------------
10010 CLS #2:CLS #3:CLS #4:LOCATE 4  >GC
6,21:PRINT"Recite la table et verif
ie"
10020 LOCATE 49,23:PRINT"le resulta  >YN
t affiche."
10030 '------------ (tableau No2) a  >CK
ffichage ligne/ligne -----------
10040 LOCATE 3,21:PRINT"duree d'att  >RB
ente entre les lignes"
10050 CLS#5:ch$="":LOCATE 11,23:PRI  >EW
NT"en seconde(s): ";'REM choix du t
emps
10060 NBC=1:x=26:y=23:GOSUB 21400    >BE
10070 ch=VAL(ch$)                    >LK
10080 IF ch<1 OR ch>9 THEN 10050     >XV
10090 t=ch*1000:MU=1                 >PD
10100 FOR t=0 TO t:NEXT:GOSUB 21200  >CH
10110 CLS#4                          >RG
10120 LOCATE 48,20:PRINT"Pour recom  >AE
mancer -->";CHR$(24);" R ";CHR$(24)
10130 LOCATE 48,24:PRINT"Pour conti  >ZT
nuer   -->";CHR$(24);" S ";CHR$(24)
10140 IF OPT$="A" GOTO 10150 ELSE L  >EL
OCATE 48,22:PRINT"Pour retour Menu
-->";CHR$(24);" M ";CHR$(24):GOSUB
21300:GOTO 10170
10150 GOSUB 21300                    >LN
10160 GOTO 10180                     >BA
10170 GOSUB 21320                    >LT
10180 IF TOU$="R" THEN PRINT CHR$(7  >VM
):CLS#2:CLS#3:CLS#4:CLS#5:GOTO 1000
0
10190 IF TOU$="S" THEN PRINT CHR$(7  >AE
):GOTO 15000 ELSE 10150
15000 '---------------------- Table  >DB
au No3 -------------------------
15010 GOSUB 21600                    >LR
15020 CLS#3:CLS#4:CLS#5:CLS#6        >YF
15030 LOCATE 45,21:PRINT"Tape toi m  >NW
eme le Resultat avec"
15040 LOCATE 54,23:PRINT"les touche  >LE
s."
15050 FA=0:x=67:y=7:NBC=1:MU=1:TA=T  >UX
A:GOSUB 21800'REM definition des va
riables
15060 ch$="":LOCATE x,y:PRINT "";:P  >UU
RINT CHR$(242);
15070 GOSUB 21420                    >LY
15080 RES=VAL(ch$)                   >MF
15090 IF RES=MU*TA THEN 21700 ELSE   >UM
LOCATE x-1,y:SOUND 1,200,50,6:FA=FA
+1:PRINT RES;:FOR tp=1 TO 750:NEXT
15100 IF MU>10 THEN 15130            >RT
15110 GOSUB 21810                    >LW
15120 GOTO 15060                     >BD
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15130 GOSUB 22000                          >LP
15140 CLS#4:LOCATE 48,20:PRINT"Pour        >KK
 recommancer -->";CHR$(24);" R ";CH
R$(24)
15150 LOCATE 48,24:PRINT"Pour conti        >ZA
nuer   -->";CHR$(24);" S ";CHR$(24)
15160 IF OPT$="A" THEN GOTO 15170 E        >PB
LSE LOCATE 48,22:PRINT"Pour retour
Menu -->";CHR$(24);" M ";CHR$(24):G
OSUB 21300:GOTO 15190
15170 GOSUB 21300                          >LW
15180 GOTO 15200                           >BF
15190 GOSUB 21320                          >LA
15200 IF TOU$="R" THEN PRINT CHR$(7        >DF
):CLS#2:CLS#3:CLS#4:CLS#5:CLS#6:GOT
O 15000
15210 IF TOU$="S" THEN PRINT CHR$(7        >ZH
):CLS#2:CLS#3:CLS#4:GOTO 20000 ELSE
 15170
20000 '---------------------- opti        >CH
on No4 -------------------------
20010 '------------------ complemen        >CJ
t tableau No4 ------------------
20020 Z=1:FA=0:CLS#1:CLS#7:x=3:y=17        >DB
:v=x:w=y:LOCATE 41,17:PRINT"Tables
0 a 20 / Multiplicateur 0 a 10"
20030 ORIGIN 23,125:DRAW 0,200:ORIG        >PA
IN 10,141:DRAW 250,0:ORIGIN 18,324:
DRAW 4,6:ORIGIN 27,324:DRAW -4,6
20040 ORIGIN 22,125:DRAW 0,200:ORIG        >DQ
IN 261,137:DRAW 7,3:ORIGIN 261,145:
DRAW 7,-4
20050 LOCATE 2,5:PRINT"y":LOCATE 35        >GC
,17:PRINT"x":GOSUB 22400
20060 LOCATE 5,21:PRINT"Vers x = no        >HG
mbre de reponses
20070 LOCATE 6,23:PRINT"Vers y = re        >DD
ponses justes
20080 ORIGIN 104,135:DRAW 0,10:ORIG        >FQ
IN 104,303:DRAW 0,-10:LOCATE 12,18:
PRINT "TB"
20090 ORIGIN 176,135:DRAW 0,10:ORIG        >EH
IN 176,303:DRAW 0,-10:LOCATE 22,18:
PRINT "P"
20100 ORIGIN 248,135:DRAW 0,10:ORIG        >AK
IN 248,303:DRAW 0,-10:LOCATE 31,18:
PRINT "M":LOCATE 10,6:PRINT"10 repo
nses justes"
20110 ORIGIN 15,304:DRAW 240,0             >XX
20120 ORIGIN 365,160:DRAW 200,0:ORI        >DT
GIN 565,160:DRAW 0,110:ORIGIN 565,2
70:DRAW -200,0:ORIGIN 365,270:DRAW
0,-110
20130 LOCATE 52,6:PRINT "Operation         >NC
No";Z
20140 LOCATE 42,20:PRINT"Tape toi-m        >VU
eme les chiffres puis le"
20150 LOCATE 42,22:PRINT"resultat.T        >VQ
ape <ENTER> s'il n'y a pas"
20160 LOCATE 42,24:PRINT"de signal         >TG
sonore."
20170 ESS=1:LOCATE 38,2:PRINT CHR$(        >LJ
24);"  tu as trois essais pour trou
ver ";CHR$(24);" No":LOCATE 78,2:PR
INT CHR$(24);"   ";CHR$(24)
20180 GOSUB 21900                          >LZ
20190 x=50:y=10:NBC=2:GOSUB 21400          >BD
```



```
20200 TA=VAL(ch$):IF TA=0 AND ch$<>        >VN
"0" THEN GOTO 20190
20210 IF TA<0 OR TA>20 THEN LOCATE         >ZF
x,y:PRINT CHR$(128);CHR$(128):GOTO
20190
20215 IF TA<10 THEN LOCATE x+1,y:PR        >QU
INT CHR$(128)
20220 LOCATE 54,10:PRINT CHR$(120):        >JQ
x=58:y=10:NBC=2:GOSUB 21400
20230 MU=VAL(ch$):IF MU=0 AND ch$<>        >VN
"0" THEN GOTO 20220
20240 IF MU<0 OR MU>10 THEN LOCATE         >ZE
x,y:PRINT CHR$(128);CHR$(128):GOTO
20220
20245 IF MU<10 THEN LOCATE x+1,y:PR        >QL
INT CHR$(128)
20250 LOCATE 63,10:PRINT CHR$(61):x        >ZY
=66:y=10:GOSUB 21800
20260 GOSUB 21900                          >LY
20270 GOSUB 21400                          >LU
20280 RES=VAL(ch$):IF RES=0 AND ch$        >YN
<>"0" THEN GOTO 20270
20290 IF RES=TA*MU THEN LOCATE x-1,        >KY
y:PRINT RES:LOCATE 56,12:PRINT" JUS
TE ":FOR tp=1 TO 2500:NEXT:ESS=1:v=
v+1:w=w-1:GOSUB 22300:GOTO 20320
20300 LOCATE x-1,y:SOUND 1,200,50,6        >MB
:PRINT RES;:FA=FA+1:LOCATE 56,12:PR
INT" FAUX ":FOR tp=1 TO 500:NEXT:ES
S=ESS+1
20310 IF ESS=4 THEN LOCATE x-1,y:PR        >XV
INT TA*MU:LOCATE 54,12:PRINT" RESUL
TAT ":FOR tp=1 TO 2000:NEXT:v=v+1:G
OSUB 22320:ESS=3:GOSUB 21900:GOTO 2
0320 ELSE v=v+1:GOSUB 22310:GOTO 20
250
20320 IF TA=MU GOTO 20360                  >TB
20330 LOCATE 52,12:FOR tp=1 TO 1000        >KB
:NEXT:PRINT"MAIS EGALEMENT"
20340 LOCATE 49,14:PRINT MU:LOCATE         >WR
54,14:PRINT CHR$(120):LOCATE 57,14:
PRINT TA:LOCATE 63,14:PRINT CHR$(61
):LOCATE 65,14:PRINT TA*MU
20350 FOR tp=1 TO 3000:NEXT                >VW
20360 IF Z=10 GOTO 20370 ELSE Z=Z+1        >BG
:CLS#2:CLS#3:GOTO 20080
20370 GOSUB 22000:CLS#4:LOCATE 48,2        >CT
0:PRINT"Pour recommancer -->";CHR$(
24);" R ";CHR$(24)
20380 LOCATE 48,24:PRINT"Pour retou        >AE
r Menu -->";CHR$(24);" M ";CHR$(24)
20390 GOSUB 21300                          >LW
20400 GOSUB 21320                          >LP
20410 IF TOU$="R" THEN PRINT CHR$(7        >JE
):CLS#2:CLS#3:CLS#4:CLS#5:GOTO 2000
0 ELSE 20390'----------------------
----------------------------------
------------------
21000 OPT$=INKEY$:IF OPT$="" THEN 2        >FC
1000
21010 OPT$=UPPER$(OPT$):RETURN             >AE
21020 IF OPT$="A" OR OPT$="B" OR OP        >QB
T$="C" OR OPT$="D" GOTO 1230 ELSE 1
210
21200 FOR MU=1 TO 10:PRINT#2,TAB (1        >HU
0);TA;CHR$(120);MU;TAB(22)"=";:PRIN
T#3,TA*MU
21210 IF MU=10 THEN RETURN ELSE FOR        >CD
 t=0 TO t:NEXT t:NEXT MU
21300 TOU$=INKEY$:IF TOU$="" THEN 2        >FV
1300
21310 TOU$=UPPER$(TOU$):RETURN             >AU
21320 IF TOU$="M" THEN PRINT CHR$(7        >LC
):CLS#2:CLS#3:CLS#4:CLS#5:GOTO 1000
 ELSE RETURN
21400 LOCATE x,y:PRINT CHR$(233)           >AT
21410 ch$="":LOCATE x,y:PRINT "";          >AN
21420 c$=INKEY$                            >CH
21425 IF ch$="0" THEN NBC=1:GOTO 21        >DG
470
21430 IF c$=CHR$(13) THEN PRINT CHR        >RD
$(7):GOTO 21470
21440 IF c$<>"" THEN PRINT c$;:ch$=        >GA
ch$+c$
21450 IF LEN(ch$)=NBC THEN PRINT CH        >UB
```

TABLE DE MULTIPLICATION

(S U I T E)

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R$(7):GOTO 21470
21460 GOTO 21420                                    >BE
21470 LOCATE x,y:PRINT ch$                          >VJ
21480 ON ERROR GOTO 22200                           >TU
21490 RETURN                                        >MJ
21500 CLS #1:LOCATE 8,10:PRINT CHR$                 >LM
(24);SPACE$(x);CHR$(24):LOCATE 8,11
:PRINT" Voici la table de";TA;:LOCA
TE 8,12:PRINT CHR$(24);SPACE$(x);CH
R$(24)
21510 LOCATE 73,2:PRINT TA:RETURN                   >CD
21600 CLS#2:CLS#3:CLS#4:FOR MU=1 TO                 >GP
 10:PRINT#2,TAB (10);TA;CHR$(120);M
U;TAB(22)"=":NEXT:RETURN
21700 LOCATE x-1,y:PRINT RES:MU=MU+                 >ZG
1:y=Y+1:GOTO 15100
21800 IF MU*TA>=0 AND MU*TA<10 THEN                 >VX
 NBC=1:LOCATE x,y
21810 IF MU*TA>9 THEN NBC=2:LOCATE                  >NK
x+1,y:PRINT CHR$(128);CHR$(128)
21820 IF MU*TA>99 THEN NBC=3:LOCATE                 >UB
 x+2,y:PRINT CHR$(128);CHR$(128):RE
TURN ELSE RETURN
21900 LOCATE 75,2:PRINT ESS:RETURN                  >DF
22000 IF FA=0 THEN CLS#5:LOCATE 2,2                 >DH
1:PRINT CHR$(24);SPACE$(33);CHR$(24
):LOCATE 2,22:PRINT CHR$(24);" BRAV
O TU N'AS PAS FAIT DE FAUTE ";CHR$(
24):LOCATE 2,23:PRINT CHR$(24);SPAC
E$(33);CHR$(24):ENT 1,100,-5,2:SOUN
D 1,70,25,4,0,1:RETURN
22100 CLS#5:IF FA>9 THEN x=24 ELSE                  >EV
x=23
22110 CLS#7:LOCATE 8,21:PRINT CHR$(                 >XX
24);SPACE$(x);CHR$(24):LOCATE 8,22:
PRINT CHR$(24);" TU AS FAIT";FA;"FA
UTE(S) ";CHR$(24):LOCATE 8,23:PRINT
 CHR$(24);SPACE$(x);CHR$(24):SOUND
1,3822,100,7:RETURN
22200 IF ERL=1390 AND ERR=13 THEN T                 >UF
A=-1:RESUME NEXT
22210 IF ERL=10070 AND ERR=13 THEN                  >UN
ch=0:RESUME NEXT
22220 IF ERL=15080 AND ERR=13 THEN                  >WM
RES=0:RESUME NEXT
22230 IF ERL=20200 AND ERR=13 THEN                  >VU
TA=-1:RESUME NEXT
22240 IF ERL=20230 AND ERR=13 THEN                  >WD
MU=-1:RESUME NEXT
22250 IF ERL=20280 AND ERR=13 THEN                  >XL
RES=-1:RESUME NEXT
22300 LOCATE v,w:a=204:SYMBOL AFTER                 >XD
 a:SYMBOL a,1,2,4,8,16,32,64,128:PR
INT CHR$(a):RETURN
22310 LOCATE v,w-1:b=208:SYMBOL AFT                 >VL
ER b:SYMBOL b,0,0,0,0,0,0,0,255:PRI
NT CHR$(b):RETURN
22320 IF w=17 THEN w=17:LOCATE v,w-                 >WT
1:PRINT CHR$(b):RETURN:ELSE LOCATE
v,w:c=205:SYMBOL AFTER c:SYMBOL c,1
28,64,32,16,8,4,2,129:PRINT CHR$(c)
:w=w+1:RETURN
22400 d=132                                         >NH
22410 SYMBOL AFTER d                                >PG
22420 SYMBOL d,0,0,0,0,0,0,0,128                    >YU
22430 x=4:y=16                                      >UC
22431 LOCATE x,y                                    >LH
22440 FOR p=33 TO 323 STEP 10:PRINT                 >RW
 CHR$(d);:NEXT
22441 y=y-1:IF y=6 THEN 22450 ELSE                  >EV
22431
22450 RETURN                                        >MF
```