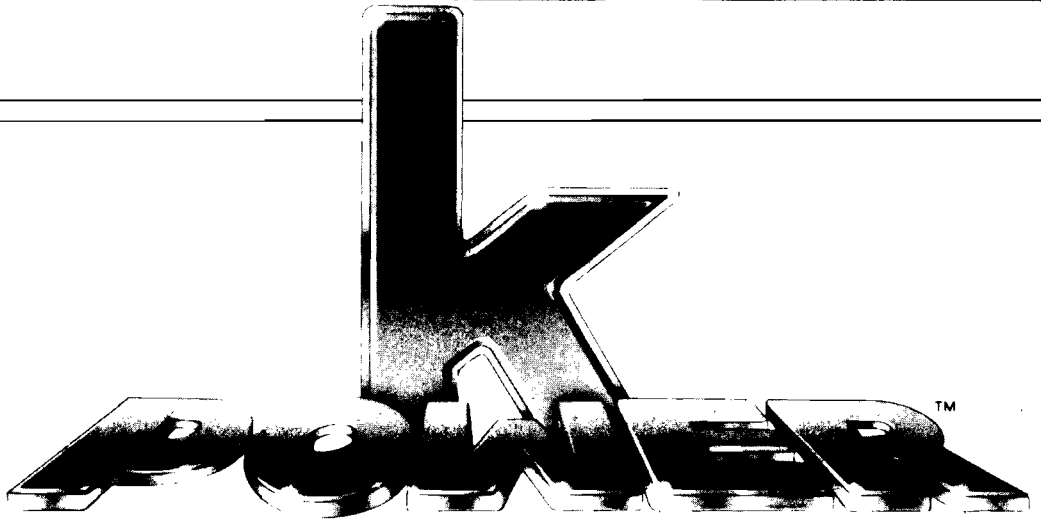
K POWER Collection

10 AWESOME ORIGINAL UNUSUAL SUPER FANTASTIC COMPUTER PUZZLES AND GAMES

J O E Y ◇ L A T I M I E R



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Contents

Because of the sound and graphics requirements of some of the programs and the limitations of some computers, not all programs are translated for all machines.

Introduction

6 SIMPLE TIPS FOR PROGRAMMERS

Even the most experienced programmers make the most basic errors every once in awhile. To help you avoid frustrating mistakes, here are some simple programming reminders.

1.

When you type program lines into your computer, be sure to copy them exactly as written. Numbers, punctuation marks, and spaces are important.

2.

Remember to keep the alpha lock (or caps key) down while you're typing in the program.

3.

Press RETURN or ENTER after every completed program line.

4.

Before you run the program, save it. That way you avoid crashing the program if you made a typing error.

5.

Run the program when you finish typing it in by typing RUN and pressing the RETURN or ENTER key. If the computer gives you an error message, don't panic. Mistakes can be fixed. List the program by typing the word LIST and pressing the RETURN or ENTER key and double-check each line. If there is data, check to make sure you haven't typed any extra commas. Make sure you've typed zeros and not the letter "O." A foolproof way to correct a mistake is to type in the entire line again (including its line number). When you list the program again, you'll find the new line in place of the old.

6.

If you need more help, read the programming guide you received with your computer. It should cover most of your questions.

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BONUS PROGRAM #1

AMAZIN'

AMAZIN' is what you'll say, the first time you make it through this twistin' maze. The clock tells you your score time, so you can compare your score with the best score. Watch out for walls! If you collide with a wall, you lose. On most computers you have the choice of joystick control, or keyboard control. Select which one you want at the beginning of the game. If you use the keyboard, write the direction keys down on a piece of paper and practice using them. Pushing direction keys will get you where you want to go, pronto!

Apple II and Apple IIe

```
1  REM  *** AMAZIN  APPLE ***
10  GOTO 3000
99  REM  *** JOYSTICK ROUTINE ***
100  IF  PDL (1) < 64 THEN YI =  - 1: RETURN
110  IF  PDL (1) > 192 THEN YI = 1: RETURN
120  IF  PDL (0) < 64 THEN XI =  - 1: RETURN
130  IF  PDL (0) > 192 THEN XI = 1: RETURN
160 XI = 0:YI = 0: RETURN
199  REM  *** READ KEYBOARD ROUTINE ***
200 XI = 0:YI = 0:LI = 0
210 KE =  PEEK ( - 16384): POKE  - 16368,0
220  IF KE < 128 THEN 250
230  IF  CHR$ (KE - 128) = KT$(LI) THEN YI = YT(LI):XI = XT(LI): RETURN
240 LI = LI + 1: IF LI < 4 THEN 220
250  RETURN
499  REM  *** MAIN LOOP-DRASW PLAYER CHARACTER ***
500 XI = 0:YI = 0:LI = 0
510 CO = 3:RO = 0:L = 0
520 TI = 0
530  IF YI = 0 AND XI = 0 THEN 550
540  COLOR= 0: PLOT CO - XI,RO - YI
550  COLOR= 14: PLOT CO,RO
560  IF L = 1 THEN 2000
570  ON J GOSUB 100,200
580 RO = RO + YI:CO = CO + XI
590  IF CO > 39 THEN 1000
600  IF RO < 0 THEN RO = 0
620  IF  SCRN( CO,RO) = 15 THEN L = 1
630 TI = TI + 1
640  GOTO 530
999  REM  *** SUCCESSFULLY COMPLETE MAZE ***
1000  TEXT : HOME :WH = TI
1010  FOR T = 1 TO 100
1020  PRINT "YOU MADE IT! ";
1040  NEXT T
1060  IF WH < LS THEN LS = WH
1070  HOME
1080  PRINT  TAB( 11)"YOUR SCORE IS: "WH
```

```
1090  PRINT
1100  PRINT  TAB( 10)"THE LOW SCORE IS: "LS
1110  PRINT
1120  GOTO 2030
1999  REM  *** RUN INTO WALL ***
2000  TEXT : HOME
2010  PRINT  TAB( 6)"YOU RAN INTO A WALL!"
2020  PRINT
2030  PRINT  TAB( 6)"PRESS ANY KEY TO PLAY AGAIN"
2040  IF  PEEK ( - 16368) > 127 THEN 2040
2050  GET DUM$
2060  RESTORE
2070  GOTO 3120
2999  REM  *** INTRODUCTION ***
3000  HOME
3010  PRINT "     ARE YOU USING A JOYSTICK (Y/N)?"
3030  IF J$ = "Y" THEN J = 1: GOTO 3120
3040  IF J$ <  > "Y" THEN J = 2
3050  HOME
3060  PRINT "THE DIRECTION KEYS ARE:"
3070  PRINT
3080  PRINT "I=UP  M=DOWN  J=LEFT  L=RIGHT"
3090  PRINT
3100  PRINT "PLEASE PRESS ANY KEY TO BEGIN."
3110  GET N$
3115  DIM KT$(3),XT(3),YT(3)
3119  REM  *** INITIALIZE VARIABLES ***
3120  GR : POKE  - 16302,0: CALL  - 1998:LS = 400
3130  COLOR= 15
3139  REM  *** DRAW MAZE ***
3140  FOR RO = 1 TO 47
3150  READ X1,X2,Y
3160  HLIN X1,X2 AT Y
3170  NEXT RO
3180  FOR CO = 1 TO 45
3190  READ Y1,Y2,X
3200  VLIN Y1,Y2 AT X
3210  NEXT CO
3220  FOR IN = 1 TO 44
3230 KOL =  INT ( RND (1) * 15) + 1: IF KOL = 15 THEN 3230
3240  COLOR= KOL
3250  READ X,Y
3260  PLOT X,Y
3270  NEXT IN
3279  REM  *** INITIALIZE DIRECTION VARIABLES ***
3290  FOR I = 0 TO 3: READ KT$(I): NEXT
3300  FOR I = 0 TO 3: READ XT(I): NEXT
3310  FOR I = 0 TO 3: READ YT(I): NEXT
3320  GOTO 500
5000  DATA  5,39,0,35,39,1,35,39,2,5,10,3,35,39,3
5010  DATA  30,33,5,0,13,8,0,6,9,32,39,9,35,39,10,9,13,11,30,33,13
5020  DATA  4,11,15,4,11,16,4,11,18,4,11,19,13,16,19,23,25,19
5030  DATA  23,25,20,29,39,20,29,39,21,27,39,22,5,9,23
5040  DATA  27,39,23,25,30,24,25,30,25,0,7,26,9,11,26
5050  DATA  0,7,27,9,11,27,19,30,28,34,36,28,34,36,29
5060  DATA  4,11,30,17,34,32,17,34,33,4,6,34,8,10,34
5070  DATA  37,39,36,4,6,40,8,27,40,4,6,41,8,27,41,33,36,41
5080  DATA  33,36,42,4,27,44,0,39,47
5090  DATA  0,47,0,0,7,1,15,19,4,35,39,4,0,2,5,15,19,5
```

```
5100  DATA  35,39,6,35,39,8,11,19,9,0,2,10,11,19,10
5110  DATA  35,39,10,11,22,11,24,27,11,19,39,13,27,33,14
5120  DATA  4,10,15,4,10,16,16,19,16,14,16,17,23,31,17,12,14,18,20,23,18
5130  DATA  0,12,19,19,21,19,17,19,20,15,17,21,34,37,21,2,3,22
5140  DATA  6,15,22,26,27,24,36,39,24,16,18,25,26,27,25
5150  DATA  0,16,26,34,37,27,26,27,29,5,13,30,26,27,30
5160  DATA  34,44,30,36,40,33,30,31,34,11,19,35,11,19,36
5170  DATA  11,47,39
5180  DATA  6,1,7,1,8,1,9,1,6,2,7,2,8,2,9,2
5190  DATA  37,11,38,11,37,12,38,12,37,13,38,13,37,14,38,14,37,15,38,
      15,37,16,38,16,37,17,38,17,37,18,38,18,37,19,38,19
5200  DATA  6,17,7,17,8,17,5,35,5,36,5,37,5,38,5,39,9,35,9,36,9,37,9,39
5210  DATA  26,26,27,26,28,26,26,27,27,27,28,27
5220  DATA  I,J,L,M,0,-1,1,0,-1,0,0,1
```

Atari

```
1 REM *** AMAZIN' ATARI ***
10 GOTO 3000
99 REM *** JOYSTICK ROUTINE ***
100 JV=STICK(0)
110 IF JV=14 THEN XI=0:YI=-1:RETURN
120 IF JV=13 THEN XI=0:YI=1:RETURN
130 IF JV=11 THEN XI=-1:YI=0:RETURN
140 IF JV=7 THEN XI=1:YI=0:RETURN
150 XI=0:YI=0
160 RETURN
199 REM *** READ KEYBOARD ROUTINE ***
200 XI=0:YI=0
210 K=PEEK(764)
220 FOR D=1 TO 15
230 NEXT D
240 IF K=255 THEN 210
250 IF K=13 THEN XI=0:YI=-1:RETURN
260 IF K=37 THEN XI=0:YI=1:RETURN
270 IF K=1 THEN XI=-1:YI=0:RETURN
280 IF K=0 THEN XI=1:YI=0:RETURN
499 REM *** MAIN LOOP--DRAW PLAYER CHARACTER ***
500 H1=2:H2=0
510 CO=2
520 L=0
530 RO=0
540 COLOR 0
550 PLOT H1,H2
560 COLOR 2
570 PLOT CO,RO
580 IF L=1 THEN 2000
590 H1=CO:H2=RO:TI=TI+1
600 ON J GOSUB 100,200
610 RO=RO+YI:CO=CO+XI
620 IF CO>39 THEN 1000
630 IF RO<0 THEN RO=0
640 LOCATE CO,RO,C
650 IF C=1 THEN L=1
660 POKE 752,6
670 PRINT CHR$(125)
680 PRINT TI
690 FOR T=1 TO 30
700 NEXT T
710 PRINT
```

```
720 GOTO 540
999 REM *** SUCCESSFULLY COMPLETE MAZE ***
1000 GRAPHICS 0
1010 FOR T=1 TO 100
1020 PRINT "YOU MADE IT!  ";
1030 NEXT T
1040 PRINT CHR$(125)
1050 PRINT "YOUR SCORE IS: ";TI
1060 IF TI<LS THEN LS=TI
1070 PRINT
1080 PRINT "LOW SCORE IS: ";LS
1090 PRINT
1100 GOTO 2030
1999 REM *** RUN INTO WALL ***
2000 GRAPHICS 0
2010 PRINT "YOU RAN INTO A WALL!"
2020 PRINT
2030 PRINT "PRESS (RETURN) TO PLAY AGAIN."
2040 GOSUB 4000
2050 RESTORE
2060 GOTO 3180
2999 REM *** INTRODUCTION ***
3000 DIM J$(3),R$(3)
3010 PRINT CHR$(125)
3020 PRINT "TYPE YOUR ANSWER"
3030 PRINT "THEN PRESS (RETURN)."
3040 PRINT
3050 PRINT "ARE YOU USING A JOYSTICK (Y/N)";
3060 INPUT J$
3070 IF J$="Y" OR J$="YES" THEN J=1
3080 IF J=1 THEN 3150
3090 J=2
3100 PRINT CHR$(125)
3110 PRINT "THE DIRECTION KEYS ARE:"
3120 PRINT
3130 PRINT "I=UP M=DOWN J=LEFT L=RIGHT"
3140 PRINT
3150 PRINT "PLEASE PRESS (RETURN) TO BEGIN."
3160 GOSUB 4000
3169 REM *** INITIALIZE VARIABLES ***
3170 LS=999
3180 TI=0
3190 GRAPHICS 3
3200 SETCOLOR 0,0,8
3210 COLOR 1
3220 READ A,B,C,D
3230 IF A=-1 THEN 500
3240 PLOT A,B
3250 DRAWTO C,D
3260 GOTO 3220
3999 REM *** WAIT ROUTINE ***
4000 POKE 764,255
4010 K=PEEK(764)
4020 IF K=255 THEN 4010
4030 RETURN
5000 DATA 0,0,0,19,4,0,39,0,9,1,9,14,16,1,16,5
5010 DATA 25,1,25,4,30,1,30,3,34,1,34,3
5020 DATA 4,3,6,3,4,3,4,11,18,3,18,5,21,3,21,6,20,3,28,6,39,3,39,19,12,
4,12,9,32,4,32,7
```

```
5030 DATA 37,3,37,10,38,3,38,3,9,5,10,5,14,5,14,5,23,5,23,5,7,6,8,6,2,7
,4,7
5040 DATA 20,7,20,12,24,7,37,7,24,7,24,11
5050 DATA 30,8,30,8,7,9,7,14,9,9,9,14,12,9,17,9,18,9,18,9,19,8,19,9,23,
9,23,9
5060 DATA 32,9,32,9,1,10,2,10,18,10,19,10,28,10,28,10
5070 DATA 19,11,19,11,27,11,27,16,27,11,34,11,34,11,34,15,12,12,16,12,
3,13,3,13,4,13,4,14
5080 DATA 21,13,21,13,4,14,7,14,9,14,18,14,21,14,24,14,24,15,24,15
5090 DATA 30,14,32,14,32,14,32,18,36,14,36,15,4,16,27,16,35,16,35,16
5100 DATA 0,19,39,19
5110 DATA -1,-1,-1,-1
```

Commodore 64

```
1 REM *** AMAZIN' 64 ***
10 GOTO 3000
99 REM *** JOYSTICK ROUTINE ***
100 JV=PEEK(56321)
110 JV=15-(JVAND15)
120 IF JV=1 THEN XI=0:YI=-1:RETURN
130 IF JV=2 THEN XI=0:YI=1:RETURN
140 IF JV=4 THEN XI=-1:YI=0:RETURN
150 IF JV=8 THEN XI=1:YI=0:RETURN
160 XI=0:YI=0:RETURN
199 REM *** READ KEYBOARD ROUTINE ***
200 XI=0:YI=0:LI=0
210 GET KE$:IF KE$=""THEN RETURN
220 IF KE$=KT$(LI)THEN YI=YT(LI):XI=XT(LI):RETURN
230 LI=LI+1:IF LI<4 THEN 220
240 RETURN
499 REM *** MAIN LOOP-DRAW PLAYER CHARACTER ***
500 H1=3:H2=0
510 CO=3:RO=0:L=0
520 TI$="000000"
530 IF CO>39 THEN 1000
540 IF RO<0 THEN RO=0
550 POKE CB+H1+40*H2,2
560 POKE CB+CO+40*RO,0
570 POKE SB+CO+40*RO,81
580 IF L=1 THEN 2000
590 H1=CO:H2=RO
600 ON J GOSUB 100,200
610 RO=RO+YI:CO=CO+XI
620 IF PEEK(SB+CO+40*RO)=160 THEN L=1
630 PRINT CHR$(19)CHR$(159)TAB(36)RIGHT$(TI$,3)
640 GOTO 530
999 REM *** SUCCESSFULLY COMPLETED MAZE ***
1000 PRINT CHR$(147):WH$=TI$
1010 FOR T=1 TO 100
1020 PRINT"YOU MADE IT! ";
1030 POKE 53280,INT(RND(1)*16)+1
1040 NEXT T
1050 POKE 53281,3
1060 IF VAL(RIGHT$(WH$,3))<VAL(LS$)THEN LS$=RIGHT$(WH$,3)
1070 PRINT CHR$(147)CHR$(144)
1080 PRINT TAB(11)"YOUR SCORE IS:"RIGHT$(WH$,3)
1090 PRINT
1100 PRINT TAB(10)"THE LOW SCORE IS:"LS$
1110 PRINT
```

```
1120 GOTO 2030
1999 REM *** RAN INTO WALL ***
2000 PRINT CHR$(147)CHR$(144)
2010 PRINTTAB(10)"YOU RAN INTO A WALL!"
2020 PRINT
2030 PRINTTAB(6)"PRESS (SHIFT) TO PLAY AGAIN."
2040 GOSUB 4000
2050 RESTORE
2060 GET DUM$:IF DUM$()""THEN 2060
2070 GOTO 3120
2999 REM *** INTRODUCTION ***
3000 PRINT CHR$(147)
3010 PRINT "    ARE YOU USING A JOYSTICK (Y/N)?"
3020 GET J$:IF J$=""THEN 3020
3030 IF J$="Y" THEN J=1:GOTO 3120
3040 IF J$=()"Y" THEN J=2
3050 PRINT CHR$(147)
3060 PRINT "THE DIRECTION KEYS ARE:"
3070 PRINT
3080 PRINT "I=UP  M=DOWN  J=LEFT  L=RIGHT"
3090 PRINT
3100 PRINT "PLEASE PRESS (SHIFT) TO BEGIN."
3110 GOSUB 4000
3119 REM *** INITIALIZE VARIABLES ***
3120 SB=1024:CB=55296:LS$="200"
3130 POKE 53280,6:POKE 53281,2:POKE 650,128
3139 REM *** DRAW MAZE ***
3140 PRINT CHR$(147)
3150 READ CO,A,B
3160 IF CO=-1 THEN 3220
3170 FOR RO=A TO B
3180 POKE SB+CO+40*RO,160
3190 POKE CB+CO+40*RO,1
3200 NEXT RO
3210 GOTO 3150
3220 READ RO,A,B
3230 IF RO=-1 THEN 3290
3240 FOR CO=A TO B
3250 POKE SB+CO+40*RO,160
3260 POKE CB+CO+40*RO,1
3270 NEXT CO
3280 GOTO 3220
3290 READ RO,A,B
3300 IF RO=-1 THEN 3380
3310 FOR CO=A TO B
3320 Q=INT(RND(1)*16)+1
3330 IF Q<3 OR Q>7 THEN 3320
3340 POKE SB+CO+40*RO,81
3350 POKE CB+CO+40*RO,Q
3360 NEXT CO
3370 GOTO 3290
3380 READ RO,CO,CH
3390 IF RO=-1 THEN 3440
3400 POKE SB+CO+40*RO,CH
3410 POKE CB+CO+40*RO,158
3420 PRINT CHR$(144)
3430 GOTO 3380
3439 REM *** INITIALIZE DIRECTION ARRAYS ***
3440 FOR I=0 TO 3:READ KT$(I):NEXT
```

```
3450 FOR I=0 TO 3:READ XT(I):NEXT
3460 FOR I=0 TO 3:READ YT(I):NEXT
3470 GOTO 500
3999 REM *** WAIT ROUTINE ***
4000 WAIT 653,1
4010 WAIT 653,1,1
4020 RETURN
5000 DATA 0,0,24,1,0,6,4,18,20,5,0,2,5,18,20
5010 DATA 6,0,2,6,18,20,7,0,2,8,1,2,8,7,10,8,18,20
5020 DATA 9,14,14,9,1,2,9,7,10,9,18,20,10,7,10,10,13,14
5030 DATA 10,18,20,12,10,20,13,3,5,13,14,15
5040 DATA 14,3,5,16,14,16,17,0,7,21,4,7,25,0,8,27,11,13
5050 DATA 27,17,18,28,10,13,29,2,6,29,9,13
5060 DATA 30,9,13,31,17,22,34,14,16,34,18,21,36,4,10
5070 DATA 39,0,1,39,3,24,-1,-1,-1
5080 DATA 0,5,39,1,5,7,1,35,39,2,5,7,2,21,21,2,29,33
5090 DATA 3,13,14,3,36,39,4,32,35,5,2,11,6,2,4
5100 DATA 6,30,32,7,11,12,8,16,16,8,20,20,9,4,7
5110 DATA 9,15,15,9,19,19,9,24,24,9,29,35,10,4,7
5120 DATA 10,13,14,10,18,18,10,22,24,10,28,38,11,10,10
5130 DATA 11,17,17,11,27,30,12,4,8,12,16,16,12,26,30,13,16,16,13,18,30
5140 DATA 14,1,7,14,13,13,14,35,36,15,13,13,16,4,10,16,16,33
5150 DATA 17,18,18,17,27,27,18,4,6,18,8,10,18,18,18,18,38,38
5160 DATA 18,22,22,19,4,6,19,8,10,19,22,22,20,4,6,20,8,10
5170 DATA 20,11,27,21,35,36,22,4,27
5180 DATA 24,0,39,-1,-1,-1
5190 DATA 0,36,38,1,6,8,8,9,9,9,9,9,11,29,29,12,28,29,19,5,5
5200 DATA 19,9,9,4,38,38,5,37,37,6,38,38,7,37,37
5210 DATA 8,38,38,9,37,37,-1,-1,-1
5220 DATA 4,37,1,5,38,13,6,37,1,7,38,26,8,37,9,9,38,14,-1,-1,-1
5230 DATA I,J,L,M,0,-1,1,0,-1,0,0,1
```

IBM PC

```
10 REM *** AMAZIN  IBM-PC ***
20 KEY OFF
30 GOTO 550
40 REM *** READ KEYBOARD ***
50 L1=0:X1=0:Y1=0
60 KE$=INKEY$
70 IF KE$="" THEN RETURN
80 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
90 LI=LI+1:IF LI<4 THEN 80
100 RETURN
110 REM *** MAIN LOOP - DRAW CHARACTER ***
120 CO=4:RO=1:L=0:H1=1:H2=4
130 LOCATE H1,H2,0
140 PRINT CHR$(32);
150 LOCATE RO,CO,0
160 PRINT CHR$(2);
170 H1=RO:H2=CO
180 IF L=1 THEN 440
190 GOSUB 50
200 RO=RO+YI:CO=CO+XI
210 IF RO>24 THEN RO=24
220 IF RO<1 THEN RO=1
230 IF CO<1 THEN CO=1
240 IF CO>80 THEN 310
250 C=SCREEN(RO,CO)
260 IF C=219 THEN L=1
```

```
270 LOCATE 2,76,0
280 PRINT RIGHT$(TIME$,4)
290 GOTO 130
300 REM *** MAZE COMPLETED ***
310 CLS
320 S=100*VAL(MID$(TIME$,4,2))+VAL(MID$(TIME$,7,2))
330 FOR T=1 TO 30
340 PRINT TAB(33);"YOU MADE IT!!!"
350 PRINT:NEXT T
360 IF S<LS THEN LS=S
370 CLS
380 PRINT "YOUR SCORE IS:";S
390 PRINT
400 PRINT "THE LOW SCORE IS:";LS
410 PRINT
420 GOTO 470
430 REM *** RAN INTO A WALL DUMMY %$##@%^&*! ***
440 CLS
450 PRINT "YOU RAN INTO A WALL!   YOU LOSE."
460 PRINT
470 PRINT "PRESS <ENTER> TO PLAY AGAIN."
480 GOSUB 1000
490 RESTORE
500 DUM$=INKEY$
510 IF DUM$<>"" THEN 500
520 CLS
530 GOTO 630
540 REM *** INTRODUCTION ***
550 SCREEN 0,0,0:WIDTH 80:LS=999
560 CLS
570 PRINT "THE DIRECTION KEYS ARE:"
580 PRINT
590 PRINT "I=UP  M=DOWN  J=LEFT  L=RIGHT"
600 PRINT
610 PRINT "PRESS <ENTER> TO CONTINUE."
620 GOSUB 1000
630 CLS
640 REM *** INITIALIZE MOTION ARRAYS ***
650 FOR I=0 TO 3:READ KT$(I):NEXT I
660 FOR I=0 TO 3:READ XT(I):NEXT I
670 FOR I=0 TO 3:READ YT(I):NEXT I
680 REM *** SCREEN DISPLAY ***
690 READ RO,A,B
700 IF RO=-1 THEN 760
710 FOR CO=A TO B
720 LOCATE RO,CO,0
730 PRINT CHR$(219);
740 NEXT CO
750 GOTO 690
760 READ CO,A,B
770 IF CO=-1 THEN 830
780 FOR RO=A TO B
790 LOCATE RO,CO,0
800 PRINT CHR$(219);
810 NEXT RO
820 GOTO 760
830 FOR RO=8 TO 13
840 READ CO,CH
850 LOCATE RO,CO,0
```

```
860 PRINT CHR$(CH);
870 NEXT RO
880 TIME$="00:00:00"
890 GOTO 120
900 REM *** WAIT ROUTINE ***
1000 R$=INKEY$
1010 IF R$<>CHR$(13) THEN 1000
1020 RETURN
2000 DATA I,M,J,L,0,0,-1,1,-1,1,0,0
2010 DATA 1,7,80,3,28,36,3,76,80,4,7,9,5,57,60,6,1,4,6,18,21,6,36,38,7,
72,80
2020 DATA 8,11,13,8,68,70,9,38,41,9,67,68,10,15,18,10,41,61,11,4,7,12,
41,57,12,61,72
2030 DATA 14,7,8,14,10,11,14,13,14,14,28,29,14,31,32,14,77,80,15,11,12,
15,20,21,15,54,74,16,44,54
2040 DATA 17,1,4,18,15,38,18,54,65,18,68,79,20,38,51,21,5,7,21,11,35,
22,49,76,25,1,79,-1,-1,-1
2050 DATA 1,1,25,5,23,23,7,4,21,8,14,14,9,8,8,9,21,21,10,14,14,11,8,21,
11,23,23,12,15,15,13,2,8,13,14,14
2060 DATA 14,14,14,15,5,10,15,13,13,15,17,17,16,16,16,17,15,15,18,2,6,
18,10,14,20,15,15,21,6,15,23,4,4,23,22,22,23,24,24
2070 DATA 24,5,6,25,6,17,28,3,14,30,6,6,32,6,17,34,6,17,35,23,23,36,3,
14,36,16,16,38,2,6,38,18,20,39,17,17
2080 DATA 40,16,16,41,4,10,41,12,15,41,23,24,45,2,6,45,17,18,48,19,22,
49,5,10,52,17,18,53,2,6,54,15,18,55,18,20
2090 DATA 57,5,10,59,13,13,59,20,21,61,7,7,61,10,12,61,16,16,62,2,2,62,
6,6,62,9,9,63,3,3,63,5,5,75,2,3
2100 DATA 63,8,8,64,4,4,64,7,7,65,6,6,65,19,19,69,2,7,72,4,12,72,20,21,
74,7,15,76,13,13,76,16,16,77,7,14,79,24,24
2110 DATA 78,22,22,80,1,3,80,7,23,-1,-1,-1
2120 DATA 78,65,79,77,78,65,79,90,78,73,79,78
```

TI-99/4A

```
1 REM *** AMAZIN' TI99/4A ***
10 GOTO 740
19 REM *** JOYTSICK ROUTINE ***
20 CALL JOYST(2,M,N)
30 XI=0
40 YI=0
50 LI=0
60 IF M=JI(LI)THEN 70 ELSE 110
70 IF N=KI(LI)THEN 80 ELSE 110
80 XI=XT(LI)
90 YI=XY(LI)
100 RETURN
110 LI=LI+1
120 TI=TI+1
130 IF LI<4 THEN 60
140 XI=0
150 YI=0
160 RETURN
169 REM *** READ KEYBOARD ***
170 XI=0
180 YI=0
190 LI=0
200 CALL KEY(3,K,P)
210 TI=TI+1
220 IF P=0 THEN 170
230 IF K=8(LI)THEN 240 ELSE 270
```

```
240 XI=XT(LI)
250 YI=XY(LI)
260 RETURN
270 LI=LI+1
280 IF LI<4 THEN 230
290 XI=0
300 XI=0
310 RETURN
319 REM *** MAIN LOOP/DRAW PLAYER CHARACTER ***
320 H1=1
330 H2=4
340 RO=1
350 CO=4
360 L=0
370 CALL VCHAR(H1,H2,136)
380 CALL VCHAR(RO,CO,144)
390 IF L=1 THEN 660
400 H1=RO
410 H2=CO
420 ON J GOSUB 20,170
430 RO=RO+XI
440 CO=CO+YI
450 IF RO<1 THEN 460 ELSE 470
460 RO=1
470 IF CO>32 THEN 520
480 CALL GCHAR(RO,CO,D)
490 IF D=128 THEN 500 ELSE 370
500 L=1
510 GOTO 370
519 REM *** COMPLETED MAZE ***
520 CALL SCREEN(12)
530 CALL CLEAR
540 FOR T=1 TO 25
550 PRINT "        YOU MADE IT !!!"
560 PRINT
570 NEXT T
580 IF TI<LS THEN 590 ELSE 600
590 LS=TI
600 PRINT
610 PRINT "YOUR SCORE IS:";TI
620 PRINT
630 PRINT "THE LOW SCORE IS:";LS
640 PRINT
650 GOTO 700
659 REM *** LOSE GAME ***
660 CALL SCREEN(9)
670 CALL CLEAR
680 PRINT "YOU RAN INTO A WALL!"
690 PRINT
700 PRINT "PRESS (ENTER) TO PLAY AGAIN."
710 GOSUB 1260
720 CALL CLEAR
730 GOTO 920
734 REM *** INTRODUCTION ***
740 CALL CLEAR
750 PRINT "TYPE YOUR ANSWER"
760 PRINT "THEN PRESS (ENTER)."
770 PRINT
780 PRINT "ARE YOU USING A JOYSTICK";
```

```
790 INPUT J$
800 IF SEG$(J$,1,1)="Y" THEN 810 ELSE 830
810 J=1
820 GOTO 880
830 J=2
840 CALL CLEAR
850 PRINT "THE DIRECTION KEYS ARE:"
860 PRINT
870 PRINT "I=UP M=DOWN J=LEFT L=RIGHT"
880 PRINT
890 PRINT "PRESS (ENTER) TO BEGIN."
900 GOSUB 1260
910 LS=999
920 RESTORE
930 TI=0
939 REM *** DEFINE CHARACTERS ***
940 A$="FFFFFFFFFFFFFFFF"
950 B$="18183CFFFF3C1818"
960 CALL CHAR(128,A$)
970 CALL CHAR(136,B$)
980 CALL CHAR(144,B$)
990 CALL COLOR(13,5,5)
1000 CALL COLOR(14,2,2)
1010 CALL COLOR(15,15,2)
1020 FOR V=1 TO 12
1030 CALL COLOR(V,16,2)
1040 CALL CLEAR
1050 NEXT V
1059 REM *** SCREEN DISPLAY ***
1060 READ RO,CO,REP
1070 IF RO=-1 THEN 1100
1080 CALL VCHAR(RO,CO,128,REP)
1090 GOTO 1060
1100 READ RO,CO,REP
1110 IF RO=-1 THEN 1140
1120 CALL HCHAR(RO,CO,128,REP)
1130 GOTO 1100
1140 FOR V=26 TO 31
1150 READ CH
1160 CALL HCHAR(23,V,CH)
1170 NEXT V
1179 REM *** LOAD DIRECTION ARRAYS ***
1180 FOR I=0 TO 3
1190 READ XT(I)
1200 READ XY(I)
1210 READ JI(I)
1220 READ KI(I)
1230 READ B(I)
1240 NEXT I
1250 GOTO 320
1260 INPUT R$
1270 RETURN
1280 DATA 1,2,24,6,4,5,12,4,5,18,4,2,21,4,3
1290 DATA 4,5,1,4,6,4,9,6,5,15,6,5,19,7,3,1,8,17
1300 DATA 4,10,11,22,10,2,18,11,1,1,13,11,15,13,2
1310 DATA 19,13,3,5,16,9,22,16,2,15,18,1,9,17,1
1320 DATA 11,19,1,17,19,5,1,20,11,4,22,6,11,23,3,1,24,6
1330 DATA 14,26,7,23,25,1,5,27,4,12,29,1,18,29,2
1340 DATA 17,30,1,5,32,20,-1,-1,-1
```

```
1350 DATA 1,5,28,2,24,9,6,30,2,9,22,8,11,23,11
1360 DATA 13,16,8,15,13,17,17,8,4,14,10,3,22,25,8
1370 DATA 24,1,31,19,6,18,5,18,1,19,31,1,-1,-1,-1
1380 DATA 65,77,65,90,73,78
1390 DATA -1,0,0,4,73,1,0,0,-4,77
1400 DATA 0,-1,-4,0,74,0,1,4,0,76
```

TRS-80 Color Computer

```
1 REM *** AMAZIN' ***
10 GOTO 3000
99 REM *** JOYSTICK ***
100 H=JOYSTK(0)
110 V=JOYSTK(1)
120 IF H<10 THEN XI=0:YI=-1:RETURN
130 IF H>52 THEN XI=0:YI=1:RETURN
140 IF V<10 THEN YI=0:XI=-1:RETURN
150 IF V>52 THEN YI=0:XI=1:RETURN
160 YI=0:XI=0:RETURN
199 REM *** READ KEYBOARD ***
200 LI=0
220 KE$=INKEY$:IF KE$="" THEN RETURN
230 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
240 LI=LI+1:IF LI<4 THEN 230
250 RETURN
499 REM *** MAIN LOOP-DRAW PLAYER CHARACTER ***
500 CO=4:RO=0
510 REM *** FOR EXTRA FUN ***
520 REM *** CRUISE THE CLOCK ***
530 SET (CO,RO,5)
540 IF F=2 THEN 570
550 FOR T=1 TO 2
560 NEXT T
570 IF L=1 THEN 2000
580 RESET (CO,RO)
590 TI=TI+.3
600 ON J GOSUB 100,200
610 RO=RO+XI:CO=CO+YI
620 IF CO>63 THEN 1000
630 IF RO<0 THEN RO=0
640 IF POINT (CO,RO)=3 THEN L=1
650 PRINT@25,INT(TI);
660 GOTO 510
999 REM *** COMPLETED MAZE ***
1000 CLS
1010 FOR T=1 TO 100
1020 PRINT "YOU MADE IT!  ";
1030 FOR D=1 TO 10
1040 NEXT D
1050 NEXT T
1060 CLS
1070 PRINT "YOUR SCORE IS:"INT(TI)
1080 IF INT(TI)<LS THEN LS=INT(TI)
1090 PRINT
1100 PRINT "THE LOW SCORE IS:"LS
1110 PRINT
1120 GOTO 2030
1999 REM *** RAN INTO THE WALL DUMMY!?+@!! ***
2000 CLS
2010 PRINT "YOU RAN INTO A WALL!"
```

```
2020 PRINT
2030 PRINT "PRESS (ENTER) TO PLAY AGAIN."
2040 GOSUB 4000
2050 RESTORE
2060 DUM$=INKEY$:IF DUM$()"" THEN 2060
2070 GOTO 3130
2999 REM *** INTRODUCTION, THE CURTAIN RISES... ***
3000 CLS
3010 PRINT "ARE YOU USING A JOYSTICK (Y/N)?"
3020 J$=INKEY$:IF J$="" THEN 3020
3030 IF J$="Y" THEN J=1:GOTO 3120
3040 IF J$() "Y" THEN J=2
3050 CLS
3060 PRINT "THE DIRECTION KEYS ARE:"
3070 PRINT
3080 PRINT "I=UP M=DOWN J=LEFT L=RIGHT"
3090 PRINT
3100 PRINT "PRESS (ENTER) TO BEGIN."
3110 GOSUB 4000
3119 REM *** INITIALIZE VARIABLES ***
3120 LS=200
3130 CLS(0):L=0:YI=0:XI=0:TI=0
3139 REM *** DRAW LE MAZE PIERRE ***
3140 READ A,B
3150 IF A=-1 THEN 3200
3160 FOR CO=A TO B
3170 PRINT@CO,CHR$(143+32);
3180 NEXT CO
3190 GOTO 3140
3200 READ A,B
3210 IF A=-1 THEN 3260
3220 FOR RO=A TO B STEP 32
3230 PRINT@RO,CHR$(143+32);
3240 NEXT RO
3250 GOTO 3200
3260 FOR RO=158 TO 318 STEP 32
3270 READ CH
3280 PRINT@RO,CHR$(CH);
3290 NEXT RO
3299 REM *** INITIALIZE DIRECTION VARIABLES ***
3300 FOR I=0 TO 3:READ KT$(I):NEXT I
3310 FOR I=0 TO 3:READ XT(I):NEXT I
3320 FOR I=0 TO 3:READ YT(I):NEXT I
3330 GOTO 500
3999 REM *** WAIT ROUTINE ***
4000 INPUT R$
4010 RETURN
5000 DATA 4,31,61,63,128,130,149,157,195,197,206,219
5010 DATA 296,309,315,317,320,322,349,351,357,370,376,379
5020 DATA 424,437,444,447,480,510,-1,-1
5030 DATA 0,448,4,68,5,389,104,296,11,235,45,45
5040 DATA 141,141,79,207,18,146,274,274,85,149
5050 DATA 245,245,309,437,24,88,216,440,91,91
5060 DATA 251,251,125,349,126,126,350,350
5070 DATA 127,510,-1,-1
5080 DATA 65,77,65,90,73,78
5090 DATA J,I,M,L,0,-1,1,0,-1,0,0,1
```

TRS-80 Model III and Model 4

```
1 REM *** AMAZIN TRS-80 MODELS 3 AND 4 CASS. OR MODEL 3 DISK BASIC ***
10 GOTO 3000
199 REM *** READ KEYBOARD ***
200 LI=0
210 KE$=INKEY$
220 IF KE$="" THEN RETURN
230 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
240 LI=LI+1
250 IF LI<4 THEN 230
260 RETURN
499 REM *** MAIN LOOP-DRAW PLAYER CHARACTER ***
500 CO=5
510 RO=0
520 SET (CO,RO)
540 FOR T=1 TO 2
550 NEXT T
560 IF L=1 THEN 2000
570 RESET (CO,RO)
580 TI=TI+.2
590 GOSUB 200
600 RO=RO+YI:CO=CO+XI
610 IF CO>127 THEN 1000
620 IF RO<0 THEN RO=0
630 IF POINT (CO,RO) THEN L=1
640 PRINT@56,INT(TI);
650 GOTO 520
999 REM *** COMPLETED MAZE ***
1000 CLS
1010 FOR T=1 TO 100
1020 PRINT "YOU MADE IT!  ";
1030 FOR D=1 TO 10
1040 NEXT D
1050 NEXT T
1060 CLS
1070 PRINT "YOUR SCORE IS:"INT(TI)
1080 IF INT(TI)<LS THEN LS=INT(TI)
1090 PRINT
1100 PRINT "THE LOW SCORE IS:"LS
1110 PRINT
1120 GOTO 2030
1999 REM *** RAN INTO A WALL ***
2000 CLS
2010 PRINT "YOU RAN INTO A WALL!"
2020 PRINT
2030 PRINT "PRESS (ENTER) TO PLAY AGAIN."
2040 GOSUB 4000
2050 RESTORE
2070 GOTO 3130
2999 REM *** INTRODUCTION ***
3000 CLS
3060 PRINT "THE DIRECTION KEYS ARE:"
3070 PRINT
3080 PRINT "I=UP M=DOWN J=LEFT L=RIGHT"
3090 PRINT
3100 PRINT "PRESS (ENTER) TO BEGIN."
3110 GOSUB 4000
3119 REM *** INITIALIZE VARIABLES ***
```

```
3120 LS=999
3130 CLS:L=0:YI=0:XI=0:TI=0
3139 REM *** DRAW MAZE ***
3140 READ A,B
3150 IF A=-1 THEN 3200
3160 FOR CO=A TO B
3170 PRINT@CO,CHR$(191);
3180 NEXT CO
3190 GOTO 3140
3200 READ A,B
3210 IF A=-1 THEN 3260
3220 FOR RO=A TO B STEP 64
3230 PRINT@RO,CHR$(191);
3240 NEXT RO
3250 GOTO 3200
3260 FOR RO=317 TO 639 STEP 64
3270 READ CH
3280 PRINT@RO,CHR$(CH);
3290 NEXT RO
3299 REM *** LOAD DIRECTION VARIABLES ***
3300 FOR I=0 TO 3:READ KT$(I):NEXT I
3310 FOR I=0 TO 3:READ XT(I):NEXT I
3320 FOR I=0 TO 3:READ YT(I):NEXT I
3330 GOTO 500
3999 REM *** WAIT ROUTINE ***
4000 INPUT R$
4010 RETURN
5000 DATA 4,63,68,71,120,127,141,143,192,203,205,207
5010 DATA 221,225,252,255,292,297,325,333,38,40,352,357
5020 DATA 361,379,449,450,460,461,464,468,472,499,502,507
5030 DATA 513,521,528,528,536,537,548,552,570,572,584,586,591,592
5040 DATA 595,601,503,509,604,609,612,617,619,630,633,635,645,645
5050 DATA 654,656,668,671,699,700,709,744,752,756,759,764
5060 DATA 847,850,912,915,863,872,880,887,891,894,960,1022,-1,-1
5070 DATA 0,960,83,467,84,468,152,408,165,229,91,347,157,157,836,900
5080 DATA 701,765,702,766,775,775,841,905,780,844,790,854,857,921
5090 DATA 96,96,99,99,423,423,105,169,112,240,173,301,684,876,789,853
5100 DATA 858,922,797,861,874,874,180,308,184,248,252,700,63,127
5110 DATA 255,959,318,638,-1,-1
5115 DATA 65,77,65,90,73,78
5120 DATA M,I,J,L
5130 DATA 0,0,-1,1
5140 DATA 1,-1,0,0
```

VIC-20

```
1 REM *** AMAZIN' VIC-20 ***
10 GOTO 3000
99 REM *** JOYSTICK ROUTINE ***
100 POKE 37154,127
110 XT%=PEEK(37152)AND128
120 POKE 37154,255
130 XT%=XT% OR (PEEK(37137)AND127)
140 XI=SGN(XT%AND128)-SGN(XT%AND16)
150 YI=SGN(XT%AND8)-SGN(XT%AND4)
160 RETURN
199 REM *** READ KEYBOARD ROUTINE ***
200 XI=0:YI=0:LI=0
210 GET KE$:IF KE$=""THEN RETURN
220 IF KE$=KT$(LI)THEN YI=YT(LI):XI=XT(LI):RETURN
```

```
230 LI=LI+1:IF LI<4 THEN 220
240 RETURN
499 REM MAIN LOOP-DRAW PLAYER ***
500 H1=3:H2=0
510 CO=2:RO=0:L=0
520 TI$="000000"
530 IF CO>21 THEN 1000
540 IF RO<0 THEN RO=0
550 POKE CB+H1+22*H2,2
560 POKE CB+CO+22*RO,0
570 POKE SB+CO+22*RO,81
580 IF L=160 THEN 2000
590 H1=CO:H2=RO
600 ON J GOSUB 100,200
610 RO=RO-YI:CO=CO-XI
620 L=PEEK(SB+CO+22*RO)
630 PRINT CHR$(19)CHR$(159)TAB(18)RIGHT$(TI$,3)
640 GOTO 530
999 REM *** COMPLETED MAZE ***
1000 PRINT CHR$(147):WH$=TI$
1010 FOR T=1 TO 100
1020 PRINT"YOU MADE IT! ";
1030 POKE 36879,INT(RND(1)*7)+8
1040 NEXT T
1050 POKE 36879,237
1060 IF VAL(RIGHT$(WH$,3))<VAL(LS$)THEN LS$=RIGHT$(WH$,3)
1070 PRINT CHR$(147)CHR$(144)
1080 PRINT "YOUR SCORE IS:"RIGHT$(WH$,3)
1090 PRINT
1100 PRINT "THE LOW SCORE IS:"LS$
1110 PRINT
1120 GOTO 2030
1999 REM *** RAN INTO WALL ***
2000 PRINT CHR$(147)CHR$(144)
2010 PRINT "YOU RAN INTO A WALL!"
2020 PRINT
2030 PRINT "(SHIFT) TO PLAY AGAIN"
2040 GOSUB 4000
2050 RESTORE
2060 GET DUM$:IF DUM$<>""THEN 2060
2070 GOTO 3120
2999 REM INTRODUCTION ***
3000 PRINT CHR$(147)
3010 PRINT "USING A JOYSTICK (Y/N)"
3020 GET J$:IF J$=""THEN 3020
3030 IF J$="Y" THEN J=1:GOTO 3120
3040 IF J$<>"Y" THEN J=2
3050 PRINT CHR$(147)
3060 PRINT "THE DIRECTION KEYS ARE"
3070 PRINT
3080 PRINT "I=UP M=DOWN"
3090 PRINT "J=LEFT L=RIGHT"
3100 PRINT:PRINT "PRESS (SHIFT) TO BEGIN"
3110 GOSUB 4000
3119 REM *** INITIALIZE VARIABLES ***
3120 SB=7680:CB=38400:LS$="200"
3130 POKE 36879,46:POKE 650,128
3139 REM *** DRAW MAZE ***
3140 PRINT CHR$(147)
```

```
3150 READ CO,A,B
3160 IF CO=-1 THEN 3220
3170 FOR RO=A TO B
3180 POKE SB+CO+22*RO,160
3190 POKE CB+CO+22*RO,1
3200 NEXT RO
3210 GOTO 3150
3220 READ RO,A,B
3230 IF RO=-1 THEN 3380
3240 FOR CO=A TO B
3250 POKE SB+CO+22*RO,160
3260 POKE CB+CO+22*RO,1
3270 NEXT CO
3280 GOTO 3220
3380 READ RO,CO,CH,Q
3390 IF RO=-1 THEN 3440
3400 POKE SB+CO+22*RO,CH
3410 POKE CB+CO+22*RO,Q
3420 PRINT CHR$(144)
3430 GOTO 3380
3439 REM *** INITIALIZE DIRECTION VARIABLES ***
3440 FOR I=0 TO 3:READ KT$(I):NEXT
3450 FOR I=0 TO 3:READ XT(I):NEXT
3460 FOR I=0 TO 3:READ YT(I):NEXT
3470 GOTO 500
3999 REM *** WAIT ROUTINE ***
4000 WAIT 653,1
4010 WAIT 653,1,1
4020 RETURN
5000 DATA 0,0,22,3,15,19,4,0,2,5,0,16,8,3,14
5010 DATA 11,1,9,14,2,6,14,9,12,16,12,16,18,3,10
5020 DATA 18,16,17,21,0,1,21,3,22,-1,-1,-1
5030 DATA 0,4,17,1,17,21,2,14,15,3,18,21,4,17,17,5,0,3
5040 DATA 6,15,16,8,3,5,9,14,17,10,18,21,12,1,2,12,11,14
5050 DATA 14,8,18,15,3,4,16,3,13,18,16,16,19,7,16,20,19,20
5060 DATA 22,0,21,-1,-1,-1
5070 DATA 4,19,1,1,4,20,81,7,5,19,81,3,5,20,13,1,6,19,1,1
5080 DATA 6,20,81,4,7,19,81,5,7,20,26,1,8,19,9,1,8,20,81,6
5090 DATA 9,19,81,7,9,20,14,1,-1,-1,-1,-1
5100 DATA M,L,J,I,0,-1,1,0,-1,0,0,1

READY.
```

BONUS PROGRAM #2

POISON IVY

POISON IVY is a game that helps you learn how to get out of a variety of sticky situations in a hurry. You begin the game stuck in a POISON IVY patch. The only way out is to go all the way off the right side of the screen before the blooming POISON IVY traps you, making escape impossible. When you touch POISON IVY, you lose. Each time you make it to the right side of the screen, the game restarts, becomes harder, and puts you at the left side of the screen. You use joystick or keyboard to control your direction.

ADAM

```
  1 REM  *** POISON IVY  ADAM ***
 10 GOTO 3000
199 REM  *** read keyboard routine ***
200 xi = 0: yi = 0: li = 0
210 GET ke$
220 IF ASC(ke$) = 160 THEN  yi = -1: RETURN
230 IF ASC(ke$) = 161 THEN  xi = 1: RETURN
240 IF ASC(ke$) = 162 THEN  yi = 1: RETURN
250 IF ASC(ke$) = 163 THEN  xi = -1: RETURN
399 REM  *** draw ivy ***
400 x = INT(RND(1)*39)
410 y = INT(RND(1)*39)
420 IF x = 0 AND y = 11 THEN 400
430 IF x = 1 AND y = 11 THEN 400
440 COLOR = 6
450 PLOT x, y
460 RETURN
499 REM  *** main loop-draw player character ***
500 co = 0: ro = 11: l = 0
510 COLOR  = 11
520 PLOT co, ro
530 IF l = 1 THEN 2000
540 GOSUB 200
550 ro = ro+yi: co = co+xi
560 IF ro > 39 THEN  ro = 39
570 IF ro < 0 THEN  ro = 0
580 IF co < 0 THEN  co = 0
590 IF co > 39 THEN 1000
600 IF SCRN(co, ro) = 6 THEN  l = 1
610 COLOR  = 0
620 PLOT co-xi, ro-yi
630 x = x+1
640 IF x/6 = INT(x/6) THEN  GOSUB 400
650 GOTO 510
999 REM  *** successfully completed maze ***
1000 TEXT: HOME
1010 FOR t = 1 TO 100
1020 PRINT "YOU MADE IT!  ";
1040 NEXT t
```

```
1060 s = s+1: IF s > hs THEN  hs = s
1070 di = di+50
1080 HOME
1100 PRINT "Your score is: "; s
1110 PRINT
1120 PRINT "The high score is: "; hs
1130 PRINT
1140 GOTO 2080
1999 REM  *** lose game ***
2000 TEXT: HOME
2010 PRINT "YOU LOSE,"
2015 PRINT "You have POISON IVY!"
2020 PRINT
2030 PRINT "Your final score is: "; s
2040 PRINT
2050 PRINT "Your high score is: "; hs
2060 PRINT
2070 s = 0
2080 PRINT "Press any key to play again."
2110 GET dum$
2130 GOTO 3060
2999 REM  *** introduction ***
3000 HOME
3010 PRINT TAB(8); "POISON IVY!"
3020 PRINT
3030 PRINT "Press any key to begin."
3040 GET n$
3049 REM  *** display screen ***
3050 di = 175
3060 GR
3070 FOR t = 1 TO di
3080 GOSUB 400
3090 NEXT t
3100 GOTO 500
```

Apple II and Apple IIe

```
1  REM  *** POISON IVY  APPLE ***
10  GOTO 3000
99  REM  *** JOYSTICK ROUTINE ***
100  IF  PDL (1) < 64 THEN YI =  - 1: GOTO 150
110  IF  PDL (1) > 192 THEN YI = 1: GOTO 150
120 YI = 0
150  IF  PDL (0) < 64 THEN XI =  - 1: GOTO 190
160  IF  PDL (0) > 192 THEN XI = 1: GOTO 190
170 XI = 0
190 LI = 0: RETURN
199  REM  *** READ KEYBOARD ROUTINE ***
200 XI = 0:YI = 0:LI = 0
210 KE =  PEEK ( - 16384): POKE  - 16368,0
220  IF KE < 128 THEN  GOTO 250
230  IF  CHR$ (KE - 128) = KT$(LI) THEN YI = YT(LI):XI = XT(LI): RETURN
240 LI = LI + 1: IF LI < 8 THEN 230
250  RETURN
399  REM  *** DRAW IVY ***
400 X =  INT ( RND (0) * 39)
410 Y =  INT ( RND (1) * 47)
420  IF X = 0 AND Y = 11 THEN 400
430  IF X = 1 AND Y = 11 THEN 400
```

```
440  COLOR= 12
450  PLOT X,Y
460  RETURN
499  REM  *** MAIN LOOP-DRAW PLAYER CHARACTER ***
500 CO = 0:RO = 11:L = 0
510  COLOR= 11
520  PLOT CO,RO
530  IF L = 1 THEN 2000
540  ON J GOSUB 100,200
550 RO = RO + YI:CO = CO + XI
560  IF RO > 47 THEN RO = 47
570  IF RO < 0 THEN RO = 0
580  IF CO < 0 THEN CO = 0
590  IF CO > 39 THEN 1000
600  IF  SCRN( CO,RO) = 12 THEN L = 1
610  COLOR= 0
620  PLOT CO - XI,RO - YI
630 X = X + 1
640  IF X / 6 =  INT (X / 6) THEN  GOSUB 400
650  GOTO 510
999  REM  *** SUCCESSFULLY COMPLETED MAZE***
1000  TEXT : HOME
1010  FOR T = 1 TO 100
1020  PRINT "YOU MADE IT! ";
1040  NEXT T
1060 S = S + 1: IF S > HS THEN HS = S
1070 DI = DI + 50
1080  HOME
1100  PRINT "YOUR SCORE IS: "S
1110  PRINT
1120  PRINT "THE HIGH SCORE IS: "HS
1130  PRINT
1140  GOTO 2080
1999  REM  *** LOSE GAME ***
2000  TEXT : HOME
2010  PRINT "YOU LOSE. YOU HAVE POISON IVY!"
2020  PRINT
2030  PRINT "YOUR FINAL SCORE IS: "S
2040  PRINT
2050  PRINT "THE HIGH SCORE IS: "HS
2060  PRINT
2070 S = 0
2080  PRINT "PRESS ANY KEY TO PLAY AGAIN."
2100  IF  PEEK ( - 16368) > 127 THEN 2100
2110  GET DUM$
2130  HOME : RESTORE
2140  GOTO 3150
2999  REM  *** INTRODUCTION ***
3000  HOME
3010  PRINT "     ARE YOU USING A JOYSTICK (Y/N)?"
3020  GET J$
3030  IF J$ = "Y" THEN J = 1: GOTO 3140
3040  IF J$ <  > "Y" THEN J = 2
3050  HOME
3060  PRINT "THE MOTION KEYS ARE:"
3070  PRINT
3080  PRINT  TAB( 6)"U  I  O"
3090  PRINT  TAB( 6)"J     L"
3100  PRINT  TAB( 6)"M  ,  ."
```

```
3110  PRINT
3120  PRINT "PRESS ANY KEY TO BEGIN."
3130  GET N$
3140  DIM KT$(7),XT(7),YT(7):DI = 175
3149  REM  *** ENTER FULL LO-RES GRAPHICS SCREEN ***
3150  GR : POKE  - 16302,0: CALL  - 1998
3159  REM  *** INITIALIZE DIRECTION VARIABLES ***
3160  FOR I = 0 TO 7: READ KT$(I): NEXT
3170  FOR I = 0 TO 7: READ XT(I): NEXT
3180  FOR I = 0 TO 7: READ YT(I): NEXT
3190  FOR T = 1 TO DI
3200  GOSUB 400
3210  NEXT T
3220  GOTO 500
5000  DATA  ",",",",L,O,I,U,J,M
5010  DATA  0,1,1,1,0,-1,-1,-1
5020  DATA  1,1,0,-1,-1,-1,0,1
```

Atari

```
1 REM *** POISON IVY ATARI ***
10 DIM R$(1),J$(1),J(10),B(10),XT(10),YT(10)
20 GOTO 3000
99 REM *** JOYSTICK ROUTINE ***
100 LI=0:YI=0:XI=0
110 JV=STICK(0)
120 IF JV=J(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
130 LI=LI+1
140 IF LI<8 THEN 120
150 XI=0:YI=0
160 RETURN
199 REM *** KEYBOARD ROUTINE ***
200 XI=0:YI=0:LI=0
210 K=PEEK(764)
220 IF K=255 THEN 210
230 IF K=B(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
240 LI=LI+1
250 IF LI<8 THEN 230
260 RETURN
400 X=INT(RND(1)*40)
410 Y=INT(RND(1)*24)
420 IF X=0 AND Y=11 THEN 400
430 IF X=1 AND Y=11 THEN 400
440 COLOR 2
450 PLOT X,Y
460 RETURN
499 REM *** MAIN LOOP-DRAW PLAYER CHARACTER ***
500 CO=0:RO=11:L=0
510 H1=0:H2=11
520 COLOR 0
530 PLOT H1,H2
540 COLOR 1
550 PLOT CO,RO
560 IF L=1 THEN 2000
570 H1=CO:H2=RO
580 ON J GOSUB 100,200
590 RO=RO+YI:CO=CO+XI
600 IF RO>23 THEN RO=23
610 IF RO<0 THEN RO=0
620 IF CO<0 THEN CO=0
```

```
630 IF CO>39 THEN 1000
640 LOCATE CO,RO,C
650 IF C=2 THEN L=1
660 Z=Z+1
670 IF Z/3=INT(Z/3) THEN GOSUB 400
680 POKE 764,255
690 GOTO 520
999 REM *** COMPLETED MAZE ***
1000 GRAPHICS 0
1010 FOR I=1 TO 100
1020 PRINT "YOU MADE IT!!!   ";
1030 NEXT I
1040 PRINT CHR$(125)
1050 S=S+1:IF S>HS THEN HS=S
1060 DI=DI+50
1070 PRINT "YOUR SCORE IS:";S
1080 PRINT
1090 PRINT "THE HIGH SCORE IS:";HS
1100 PRINT
1110 GOTO 2090
1999 REM *** HA HA POISON IVY ***
2000 GRAPHICS 0
2010 PRINT "YOU HAVE POISON IVY! YOU LOSE."
2020 PRINT
2030 PRINT "YOUR FINAL SCORE IS:";S
2040 PRINT
2050 PRINT "THE HIGH SCORE IS:";HS
2060 PRINT
2070 S=0
2090 PRINT "PRESS <RETURN> TO PLAY REVERSE."
2100 GOSUB 4000
2110 RESTORE
2120 PRINT CHR$(125)
2130 GOTO 3170
2999 REM *** INTRODUCTION ***
3000 PRINT CHR$(125)
3010 PRINT "TYPE YOUR ANSWER THEN PRESS <RETURN>."
3020 PRINT "ARE YOU USING A JOYSTICK (Y/N)";
3030 INPUT J$
3040 IF J$="Y" THEN J=1:GOTO 3130
3050 IF J$<>"Y" THEN J=2
3060 PRINT "THE MOTION KEYS ARE:"
3070 PRINT "      U  I  O"
3080 PRINT "      J     L"
3090 PRINT "      M  ,  ."
3100 PRINT
3110 PRINT "PRESS <RETURN> TO BEGIN."
3120 GOSUB 4000
3130 PRINT CHR$(125)
3159 REM *** INITIALIZE SCREEN AND SCORE VARIABLES ***
3160 DI=125
3170 GRAPHICS 3+16
3179 REM *** LOAD MOTION ARRAYS ***
3180 FOR I=0 TO 7:READ G:J(I)=G:NEXT I
3190 FOR I=0 TO 7:READ B:B(I)=B:NEXT I
3200 FOR I=0 TO 7:READ X:XT(I)=X:NEXT I
3210 FOR I=0 TO 7:READ Y:YT(I)=Y:NEXT I
3220 FOR T=1 TO DI
3230 GOSUB 400
```

```
3240 NEXT T
3250 GOTO 500
4000 INPUT R$
4010 RETURN
5000 DATA 10,14,6,11,7,9,13,5
5010 DATA 11,13,8,1,0,37,32,34
5020 DATA -1,0,1,-1,1,-1,0,1
5030 DATA -1,-1,-1,0,0,1,1,1
```

Commodore 64

```
1 REM *** POISON IVY 64 ***
10 GOTO 3000
99 REM *** JOYSTICK ROUTINE ***
100 XI=0:YI=0:LI=0
110 JV=PEEK(56321)
120 JV=15-(JVAND15)
130 IF JV=JS(LI)THEN YI=YT(LI):XI=XT(LI):RETURN
140 LI=LI+1:IF LI<10 THEN 130
150 XI=0:YI=0:RETURN
199 REM *** READ KEYBOARD ROUTINE ***
200 XI=0:YI=0:LI=0
210 GET KE$
220 IF KE$=""THEN RETURN
230 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
240 LI=LI+1:IFLI<8 THEN 230
250 RETURN
399 REM *** DRAW IVY ***
400 X=INT(RND(0)*39)
410 Y=INT(RND(1)*25)
420 IF X=0 AND Y=11 THEN 400
430 IF X=1 AND Y=11 THEN 400
440 POKE SB+X+40*Y,88
450 POKE CB+X+40*Y,5
460 RETURN
499 REM *** MAIN LOOP-DRAW PLAYER CHARACTER ***
500 CO=0:RO=11:L=0
510 POKE CB+H1+40*H2,11
520 POKE CB+CO+40*RO,0
530 POKE SB+CO+40*RO,86
540 IF L=1 THEN 2000
550 H1=CO:H2=RO
560 ON J GOSUB 100,200
570 RO=RO+YI:CO=CO+XI
580 IF RO>24 THEN RO=24
590 IF RO<0 THEN RO=0
600 IF CO<0 THEN CO=0
610 IF CO>39 THEN 1000
620 IF PEEK(SB+CO+40*RO)=88 THEN L=1
630 X=X+1
640 IF X/6=INT(X/6)THEN GOSUB 400
650 GOTO 510
999 REM *** SUCCESSFULLY COMPLETED MAZE ***
1000 PRINT CHR$(147)
1010 FOR T=1 TO 100
1020 PRINT "YOU MADE IT! ";
1030 POKE 53280,INT(RND(1)*16)+1
1050 NEXT T
1060 S=S+1:IF S>HS THEN HS=S
1070 DI=DI+50
```

```
1080 PRINT CHR$(147)
1090 POKE 53281,11
1100 PRINT "YOUR SCORE IS:"S
1110 PRINT
1120 PRINT "THE HIGH SCORE IS:"HS
1130 PRINT
1140 GOTO 2080
1999 REM *** LOSE GAME ***
2000 PRINT CHR$(147)
2010 PRINT "YOU LOSE, YOU HAVE POISON IVY!"
2020 PRINT
2030 PRINT "YOUR FINAL SCORE IS:"S
2040 PRINT
2050 PRINT "THE HIGH SCORE IS:"HS
2060 PRINT
2070 S=0
2080 PRINT "PRESS (SHIFT) TO PLAY AGAIN."
2090 GOSUB 4000
2100 RESTORE
2110 GET DUM$
2120 IF DUM$()""THEN 2110
2130 PRINT CHR$(147)
2140 GOTO 3170
2999 REM *** INTRODUCTION ***
3000 PRINT CHR$(147)
3010 PRINT "    ARE YOU USING A JOYSTICK (Y/N)?"
3020 GET J$:IF J$=""THEN 3020
3030 IF J$="Y"THEN J=1:GOTO 3140
3040 IF J$()"Y"THEN J=2
3050 PRINT CHR$(147)
3060 PRINT "THE MOTION KEYS ARE:"
3070 PRINT
3080 PRINT TAB(6)"U  I  O"
3090 PRINT TAB(6)"J     L"
3100 PRINT TAB(6)"M  ,  ."
3110 PRINT
3120 PRINT "PLEASE PRESS (SHIFT) TO BEGIN."
3130 GOSUB 4000
3140 PRINT CHR$(147)
3159 REM *** INITIALIZE SCREEN AND SCORE VARIABLES ***
3160 SB=1024:CB=55296:DI=125
3170 POKE 53280,9:POKE 53281,11:POKE650,128
3179 REM *** INITIALIZE DIRECTION ARRAYS ***
3180 FOR I=0 TO 7:READ KT$(I):NEXT
3190 FOR I=0 TO 7:READ XT(I):NEXT
3200 FOR I=0 TO 7:READ YT(I):NEXT
3210 FOR I=0 TO 7:READ JS(I):NEXT
3220 FOR T=1 TO DI
3230 GOSUB 400
3240 NEXT T
3250 GOTO 500
3999 REM *** WAIT ROUTINE ***
4000 WAIT 653,1
4010 WAIT 653,1,1
4020 RETURN
5000 DATA ",",".",L,O,I,U,J,M
5010 DATA 0,1,1,1,0,-1,-1,-1
5020 DATA 1,1,0,-1,-1,-1,0,1
5030 DATA 2,10,8,9,1,5,4,6
```

IBM PC

```
10 REM *** POISON IVY IBM-PC ***
20 KEY OFF
30 GOTO 680
40 REM *** READ KEYBOARD ROUTINE ***
50 LI=0:XI=0:YI=0
60 KE$=INKEY$
70 IF KE$="" THEN RETURN
80 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
90 LI=LI+1:IF LI<8 THEN 80
100 RETURN
110 REM *** DRAW POISON IVY ***
120 X=INT(RND(1)*79)+1
130 Y=INT(RND(1)*24)+1
140 IF X=1 AND Y=11 THEN 120
150 IF X=2 AND Y=11 THEN 120
160 LOCATE Y,X,0
170 PRINT CHR$(5);
180 RETURN
190 CO=1:RO=11:L=0:H1=11:H2=1
200 LOCATE H1,H2,0
210 PRINT CHR$(32);
220 LOCATE RO,CO,0
230 PRINT CHR$(2);
240 H1=RO:H2=CO
250 IF L=1 THEN 520
260 GOSUB 50
270 RO=RO+YI:CO=CO+XI
280 IF RO>24 THEN RO=24
290 IF RO<1 THEN RO=1
300 IF CO<1 THEN CO=1
310 IF CO>79 THEN 380
320 Q=SCREEN(RO,CO)
330 IF Q=5 THEN L=1
340 X=X+1
350 IF X/6=INT(X/6)THEN GOSUB 120
360 GOTO 200
370 REM *** SUCCESSFULLY COMPLETED MAZE ***
380 CLS
390 FOR T=1 TO 30
400 PRINT TAB(33);"YOU MADE IT!!!"
410 NEXT T
420 S=S+1
430 IF S>HS THEN HS=S
440 DI=DI+50
450 CLS
460 PRINT "YOUR SCORE IS:";S
470 PRINT
480 PRINT "THE HIGH SCORE IS:";HS
490 PRINT
500 GOTO 600
510 REM *** LOSE GAME ***
520 CLS
530 PRINT "YOU HAVE POISON IVY! YOU LOSE."
540 PRINT
550 PRINT "YOUR FINAL SCORE IS:";S
560 PRINT
570 PRINT "THE HIGH SCORE IS:";HS
```

```
580 PRINT
590 S=0
600 PRINT "PRESS <ENTER> TO PLAY AGAIN."
610 GOSUB 1000
620 RESTORE
630 DUM$=INKEY$
640 IF DUM$<>""THEN 630
650 CLS
660 GOTO 800
670 REM *** INTRODUCTION ***
680 SCREEN 0,0,0:WIDTH 80
690 CLS
700 PRINT "THE DIRECTION KEYS ARE:"
710 PRINT
720 PRINT "      U    I    O"
730 PRINT "      J         L"
740 PRINT "      M    ,    ."
750 PRINT
760 PRINT "PRESS <ENTER> TO BEGIN."
770 GOSUB 1000
780 CLS
790 DI=125
800 FOR I=0 TO 7:READ KT$(I):NEXT I
810 FOR I=0 TO 7:READ XT(I):NEXT I
820 FOR I=0 TO 7:READ YT(I):NEXT I
830 FOR T=1 TO DI
840 GOSUB 120
850 NEXT T
860 GOTO 190
1000 R$=INKEY$
1010 IF R$<>CHR$(13) THEN 1000
1020 RETURN
2000 DATA ",",".",L,O,I,U,J,M
2010 DATA 0,1,1,1,0,-1,-1,-1
2020 DATA 1,1,0,-1,-1,-1,0,1
```

TI-99/4A

```
1 REM  *** POISON IVY (TI99/4A ***
10 GOTO 960
19 REM  *** JOYSTICK ROUTINE ***
20 CALL JOYST(1,M,N)
30 X1=0
40 Y1=0
50 L1=0
60 IF N=J1(L1)THEN 70 ELSE 110
70 IF N=K1(L1)THEN 80 ELSE 110
80 X1=X(L1)
90 Y1=Y(L1)
100 RETURN
110 L1=L1+1
120 IF L1<8 THEN 60
130 X1=0
140 Y1=0
150 RETURN
160 X1=0
169 REM  *** KEYBOARD ROUTINE ***
170 Y1=0
180 L1=0
190 CALL KEY(3,K,F)
```

```
200 Z=Z+1
210 IF Z/2=INT(Z/2)THEN 220 ELSE 230
220 GOSUB 330
230 IF P=0 THEN 190
240 IF K=B(LI)THEN 250 ELSE 280
250 XI=XT(LI)
260 YI=XY(LI)
270 RETURN
280 LI=LI+1
290 IF LI<8 THEN 240
300 XI=0
310 YI=0
320 RETURN
329 REM  *** DRAW IVY ROUTINE ***
330 C=INT(RND*32)+1
340 R=INT(RND*24)+1
350 IF R=12 THEN 360 ELSE 370
360 IF C=3 THEN 330
370 CALL HCHAR(R,C,136)
380 RETURN
389 REM  *** MAIN LOOP/DRAW PLAYER ***
390 H1=12
400 H2=3
410 R0=12
420 C0=3
430 L=0
440 CALL HCHAR(H1,H2,128)
450 CALL HCHAR(R0,C0,120)
460 IF L=1 THEN 830
470 H1=R0
480 H2=C0
490 Z=Z+1
500 ON J GOSUB 20,160
510 R0=R0+XI
520 C0=C0+YI
529 REM   *** DEFINE BOUNDARIES ***
530 IF R0<1 THEN 540 ELSE 550
540 R0=1
550 IF R0>24 THEN 560 ELSE 570
560 R0=24
570 IF C0<2 THEN 580 ELSE 590
580 C0=2
590 IF C0>32 THEN 660
600 CALL GCHAR(R0,C0,D)
610 IF D=136 THEN 620 ELSE 630
620 L=1
630 IF Z/4=INT(Z/4)THEN 640 ELSE 650
640 GOSUB 330
650 GOTO 440
659 REM  *** COMPLETED MAZE ***
660 CALL SCREEN(12)
670 CALL CLEAR
680 FOR I=1 TO 25
690 PRINT "         YOU MADE IT!!!!"
700 PRINT
710 NEXT I
720 S=S+1
730 DI=DI+35
740 IF S>HS THEN 750 ELSE 760
```

```
750 HS=S
760 PRINT
770 PRINT "YOUR SCORE IS:";S
780 PRINT
790 PRINT "THE HIGH SCORE IS:";HS
800 PRINT
810 GOTO 910
829 REM  *** LOSE ROUTINE ***
830 CALL SCREEN(9)
840 CALL CLEAR
850 PRINT "YOU HAVE POISON IVY."
860 PRINT
870 PRINT "YOUR FINAL SCORE IS:";S
880 PRINT
890 PRINT "THE HIGH SCORE IS:";HS
900 S=0
910 PRINT
920 PRINT "PRESS (ENTER) TO PLAY AGAIN."
930 GOSUB 1380
940 RESTORE
950 GOTO 1170
959 REM  *** INTRODUCTION ***
960 CALL CLEAR
970 PRINT "TYPE YOUR ANSWER"
980 PRINT "THEN PRESS (ENTER)."
990 PRINT
1000 PRINT "ARE YOU USING A JOYSTICK";
1010 INPUT J$
1020 IF SEG$(J$,1,1)="Y" THEN 1030 ELSE 1050
1030 J=1
1040 GOTO 1120
1050 J=2
1060 CALL CLEAR
1070 PRINT "THE DIRECTION KEYS ARE:"
1080 PRINT
1090 PRINT TAB(7);"U  I  O"
1100 PRINT TAB(7);"J     L"
1110 PRINT TAB(7);"M  ,  ."
1120 PRINT
1130 PRINT "PRESS (ENTER) TO BEGIN."
1140 PRINT
1150 GOSUB 1380
1159 REM  *** INITIALIZE VARIABLES AND ARRAYS ***
1160 D1=75
1170 CALL SCREEN(2)
1180 CALL CLEAR
1190 FOR I=0 TO 7
1200 READ XY(I)
1210 READ X1(I)
1220 READ J1(I)
1230 READ K1(I)
1240 READ B(I)
1250 NEXT I
1260 RANDOMIZE
1269 REM  *** DEFINE CHARACTERS ***
1270 A$="FFFFFFFFFFFFFFFF"
1280 B$="1249458339C5A331C"
1290 CALL CHAR(128,A$)
1300 CALL CHAR(136,B$)
```

```
1310 CALL COLOR(13,2,2)
1320 CALL COLOR(14,3,1)
1330 CALL COLOR(12,10,1)
1340 FOR I=1 TO DI
1350 GOSUB 330
1360 NEXT I
1370 GOTO 390
1380 INPUT R$
1390 RETURN
1400 DATA -1,-1,-4,4,85
1410 DATA 0,-1,0,4,73
1420 DATA 1,-1,4,4,79
1430 DATA -1,0,-4,0,74
1440 DATA 1,0,4,0,76
1450 DATA -1,1,-4,-4,77
1460 DATA 0,1,0,-4,44
1470 DATA 1,1,4,-4,46
```

TRS-80 Color Computer

```
1 REM *** POISON IVY TRS-80 COLOR ***
10 GOTO 3000
99 REM *** JOYSTICK ROUTINE ***
100 H=JOYSTK(0)
110 V=JOYSTK(1)
120 IF H<15 THEN YI=0:XI=-1:RETURN
130 IF H>47 THEN YI=0:XI=1:RETURN
140 IF V<15 THEN XI=0:YI=-1:RETURN
150 IF V>47 THEN XI=0:YI=1:RETURN
160 YI=0:XI=0:RETURN
199 REM *** READ KEYBOARD ROUTUINE ***
200 LI=0:XI=0:YI=0
210 KE$=INKEY$
220 IF KE$="" THEN RETURN
230 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
240 LI=LI+1:IF LI<8 THEN 230
250 RETURN
399 REM *** DRAW IVY (CAN YOU BELIEVE IT?) ***
400 X=RND(510)
410 IF X=224 THEN 400
420 C=128+16*(0)+15
430 PRINT@X,CHR$(C);
440 RETURN
499 REM *** MAIN LOOP ***
500 CO=0:RO=14:L=0
510 SET (CO,RO,5)
520 IF L=1 THEN 2000
530 FOR D=1 TO 2
540 NEXT D
550 RESET(CO,RO)
560 ON J GOSUB 100,200
570 RO=RO+YI:CO=CO+XI
580 IF RO>31  THEN RO=31
590 IF RO=<0 THEN RO=0
600 IF CO<0 THEN CO=0
610 IF CO>63 THEN 1000
620 IF POINT(CO,RO)=1 THEN L=1
630 X=X+1
640 IF X/6=INT(X/6) THEN GOSUB 400
650 GOTO 510
```

```
999 REM *** COMPLETED MAZE ***
1000 CLS
1010 FOR T=1 TO 100
1020 PRINT "YOU MADE IT!  ";
1030 FOR D=1 TO 10
1040 NEXT D
1050 NEXT T
1060 CLS:S=S+1
1070 PRINT "YOUR SCORE IS:"S
1080 PRINT
1090 IF S>HS THEN HS=S
1100 PRINT "THE HIGH SCORE IS:"HS
1110 DI=DI+20
1120 PRINT
1130 GOTO 2080
1999 REM *** YOU LOSE ***
2000 CLS
2010 PRINT "YOU LOSE, YOU HAVE POISON IVY."
2020 PRINT
2030 PRINT "YOUR FINAL SCORE IS:"S
2040 PRINT
2050 PRINT "THE HIGH SCORE IS:"HS
2060 PRINT
2070 S=0
2080 PRINT "PRESS (ENTER) TO PLAY AGAIN."
2090 GOSUB 4000
2100 RESTORE
2110 DUM$=INKEY$
2120 IF DUM$<>"" THEN 2110
2130 CLS(0)
2140 GOTO 3160
2999 REM *** INTRODUCTION ***
3000 CLS
3010 PRINT "ARE YOU USING A JOYSTICK (Y/N)?"
3020 J$=INKEY$:IF J$="" THEN 3020
3030 IF J$="Y" THEN J=1:GOTO 3140
3040 IF J$<> "Y" THEN J=2
3050 CLS
3060 PRINT "THE DIRECTION KEYS ARE:"
3070 PRINT
3080 PRINT "U  I  O"
3090 PRINT "J     L"
3100 PRINT "M  ,  ."
3110 PRINT
3120 PRINT "PRESS (ENTER) TO BEGIN."
3130 GOSUB 4000
3140 CLS(0)
3150 DI=50
3159 REM *** LOAD DIRECTION VARIABLES ***
3160 FOR I=0 TO 7:READ KT$(I):NEXT
3170 FOR I=0 TO 7:READ XT(I):NEXT
3180 FOR I=0 TO 7:READ YT(I):NEXT
3190 FOR T=1 TO DI
3200 GOSUB 400
3210 NEXT T
3220 GOTO 500
3999 REM *** WAIT ROUTINE ***
4000 INPUT R$
4010 RETURN
```

```
5000 DATA ",",".",L,O,I,U,J,M
5010 DATA 0,1,1,1,0,-1,-1,-1
5020 DATA 1,1,0,-1,-1,-1,0,1
```

TRS-80 Model III and Model 4

```
1 REM *** POISON IVY TRS-80 MODELS 3 AND 4 CASS. AND MODEL 3 DISK BASIC ***
10 GOTO 3000
199 REM *** READ KEYBOARD ROUTINE ***
200 LI=0:XI=0:YI=0
210 KE$=INKEY$
220 IF KE$="" THEN RETURN
230 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
240 LI=LI+1:IF LI<8 THEN 230
250 RETURN
399 REM *** DRAW IVY ***
400 X=RND(1022)
410 IF X=512 THEN 400
430 PRINT@X,CHR$(191);
440 RETURN
499 REM *** MAIN LOOP ***
500 CO=0:RO=25:L=0
510 SET(CO,RO)
520 FOR D=1 TO 2
530 NEXT D
540 IF L=1 THEN 2000
550 RESET(CO,RO)
560 GOSUB 200
570 RO=RO+YI:CO=CO+XI
580 IF RO>47 THEN RO=47
590 IF RO<0 THEN RO=0
600 IF CO<0 THEN CO=0
610 IF CO>127 THEN 1000
620 IF POINT(CO,RO) THEN L=1
630 X=X+1
640 IF X/6=INT(X/6) THEN GOSUB 400
650 GOTO 510
999 REM *** COMPLETED MAZE ***
1000 CLS
1010 FOR T=1 TO 100
1020 PRINT "YOU MADE IT!    ";
1030 FOR D=1 TO 10
1040 NEXT D
1050 NEXT T
1060 CLS:S=S+1
1070 PRINT "YOUR SCORE IS:"S
1080 PRINT
1090 IF S>HS THEN HS=S
1100 PRINT "THE HIGH SCORE IS:"HS
1110 DI=DI+50
1120 PRINT
1130 GOTO 2080
1999 REM *** YOU GET THE ITCHES ***
2000 CLS
2010 PRINT "YOU LOSE!  YOU HAVE POISON IVY!!!"
2020 PRINT
2030 PRINT "YOUR FINAL SCORE IS:"S
2040 PRINT
2050 PRINT "THE HIGH SCORE IS:"HS
2060 PRINT
```

```
2070 S=0
2080 PRINT "PRESS (ENTER) TO PLAY AGAIN.";
2090 GOSUB 4000
2100 RESTORE
2110 CLS
2120 GOTO 3160
2999 REM *** INTRODUCTION ***
3000 CLS
3060 PRINT "THE DIRECTION KEYS ARE:"
3070 PRINT
3080 PRINT TAB(7)"U    I    O"
3090 PRINT TAB(7)"J         L"
3100 PRINT TAB(7)"M    ,    ."
3110 PRINT
3120 PRINT "PRESS (ENTER) TO BEGIN.";
3130 GOSUB 4000
3140 CLS
3150 DI=100
3159 REM *** LOAD DIRECTION VARIABLES ***
3160 FOR I=0 TO 7:READ KT$(I):NEXT
3170 FOR I=0 TO 7:READ XT(I):NEXT
3180 FOR I=0 TO 7:READ YT(I):NEXT
3190 FOR T=1 TO DI
3200 GOSUB 400
3210 NEXT T
3220 GOTO 500
3999 REM *** WAIT ROUTINE ***
4000 INPUT R$
4010 RETURN
5000 DATA ",",".",L,O,I,U,J,M
5010 DATA 0,2,2,2,0,-2,-2,-2
5020 DATA 2,2,0,-2,-2,-2,0,2
```

VIC-20

```
1 REM *** POISON IVY VIC-20 ***
10 GOTO 3000
99 REM *** JOYSTICK ROUTINE ***
100 POKE 37154,127
110 XT%=PEEK(37152)AND 128
120 POKE 37154,255
130 XT%=XT% OR (PEEK(37137)AND127)
140 XI=SGN(XT%AND128)-SGN(XT%AND16)
150 YI=SGN(XT%AND8)-SGN(XT%AND4)
160 RETURN
199 REM *** READ KEYBOARD ROUTINE ***
200 XI=0:YI=0:LI=0
210 GET KE$
220 IF KE$=""THEN RETURN
230 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
240 LI=LI+1:IFLI(8 THEN 230
250 RETURN
399 REM *** DRAW IVY ***
400 X=INT(RND(1)*22)
410 Y=INT(RND(1)*23)
420 IF X=0 AND Y=11 THEN 400
430 IF X=1 AND Y=11 THEN 400
440 POKE SB+X+22*Y,88
450 POKE CB+X+22*Y,5
460 RETURN
```

```
499 REM *** MAIN LOOP ***
500 CO=0:RO=11:L=0
510 POKE CB+H1+22*H2,0
520 POKE CB+CO+22*RO,1
530 POKE SB+CO+22*RO,43
540 IF L=1 THEN 2000
550 H1=CO:H2=RO
560 ON J GOSUB 100,200
570 RO=RO-YI:CO=CO-XI
580 IF RO)22 THEN RO=22
590 IF RO(0 THEN RO=0
600 IF CO(0 THEN CO=0
610 IF CO)21 THEN 1000
620 IF PEEK(SB+CO+22*RO)=88 THEN L=1
630 X=X+1
640 IF X/6=INT(X/6)THEN GOSUB 400
650 GOTO 510
999 REM *** COMPLETED MAZE ***
1000 PRINT CHR$(147)
1010 FOR T=1 TO 100
1020 PRINT "YOU MADE IT! ";
1030 POKE 36879,INT(RND(1)*7)+7
1050 NEXT T
1060 S=S+1
1070 IF S)HS THEN HS=S
1080 DI=DI+50
1090 PRINT CHR$(147)
1100 POKE 36879,232
1110 PRINT "YOUR SCORE IS:"S
1120 PRINT
1130 PRINT "THE HIGH SCORE IS:"HS
1140 PRINT
1150 GOTO 2080
1999 REM *** LOSE GAME ***
2000 PRINT CHR$(147)
2010 PRINT "YOU HAVE POISON IVY!"
2020 PRINT
2030 PRINT "YOUR FINAL SCORE IS:"S
2040 PRINT
2050 PRINT "THE HIGH SCORE IS:"HS
2060 PRINT
2070 S=0
2080 PRINT "(SHIFT) TO PLAY AGAIN"
2090 GOSUB 4000
2100 RESTORE
2110 GET DUM$
2120 IF DUM$()""THEN 2110
2130 PRINT CHR$(147)
2140 GOTO 3170
2299 REM *** INTRODUCTION ***
3000 PRINT CHR$(147)
3010 PRINT "USING A JOYSTICK (Y/N)"
3020 GET J$:IF J$=""THEN 3020
3030 IF J$="Y"THEN J=1:GOTO 3140
3040 IF J$()"Y"THEN J=2
3050 PRINT CHR$(147)
3060 PRINT "THE MOTION KEYS ARE:"
3070 PRINT
3080 PRINT "U  I  O"
```

```
3090 PRINT "J     L"
3100 PRINT "M  ,  ."
3110 PRINT
3120 PRINT "PRESS (SHIFT) TO BEGIN"
3130 GOSUB 4000
3140 PRINT CHR$(147)
3159 REM *** INITIALIZE SCREEN AND SCORE VARIABLES ***
3160 SB=7680:CB=38400:DI=100
3170 POKE 36879,9:POKE 650,128
3179 REM *** LOAD DIRECTION VARIABLES ***
3180 FOR I=0 TO 7:READ KT$(I):NEXT
3190 FOR I=0 TO 7:READ XT(I):NEXT
3200 FOR I=0 TO 7:READ YT(I):NEXT
3220 FOR T=1 TO DI
3230 GOSUB 400
3240 NEXT T
3250 GOTO 500
3999 REM *** WAIT ROUTINE ***
4000 WAIT 653,1
4010 WAIT 653,1,1
4020 RETURN
5000 DATA I,U,J,M,",",".",L,O
5010 DATA 0,1,1,1,0,-1,-1,-1
5020 DATA 1,1,0,-1,-1,-1,0,1
```

BONUS PROGRAM #3

WORD SCRAMBLE

WORD SCRAMBLE is something like computer alphabet soup. Duons? No, uh...nsoud? No, oh! Sound! You got it and you'll get 'em all when you sink your mind into WORD SCRAMBLER. This mind teaser shows you a line of mixed up letters that you have to make a wrod...uh...word out of. Each time you guess a letter's correct location, the computer prints a "1" underneath it. By using clues, you'll solve even the most challenging words. Each time you correctly pick the entire word, the computer shows you how many tries it took you to get it. To skip a word, type "N" and then hit ENTER or RETURN.

ADAM

```
  1 REM  *** WORD SCRAMBLE  ADAM ***
 10 HOME
 20 PRINT "WORD SCRAMBLE"
 30 PRINT
 40 PRINT "Try to unscramble words by"
 45 PRINT "typing in guesses.  The"
 50 PRINT "computer will show you which"
 60 PRINT "letters are in the correct"
 65 PRINT "places."
 70 PRINT "Use only CAPITALS!"
 80 PRINT "Example: The computer prints:"
 85 PRINT "SUEGS"
 90 PRINT "The actual word is GUESS."
100 PRINT "If you type: GEUSS, the"
105 PRINT "computer will respond with"
110 PRINT "'10011', meaning the first,"
120 PRINT "fourth, and fifth letters"
130 PRINT "are in the correct locations."
140 PRINT
150 PRINT "Press any key to continue."
160 GET n$
170 u$ = ""
179 REM  *** read scrambled word ***
180 READ w$
190 IF w$ = "0" THEN  RUN
199 REM  *** read actual word ***
200 FOR x = 1 TO LEN(w$)
210 READ ch(x)
220 u$ = u$+CHR$(ch(x))
230 NEXT x
240 g = 1
250 HOME
260 PRINT "Press 'N' then (RETURN) for"
265 PRINT "a new word."
269 REM  *** guess loop ***
270 PRINT
280 PRINT "The scrambled word is:"
```

```
 290 PRINT
 300 PRINT "   "; w$
 310 PRINT
 320 r = 0
 330 PRINT "Type your guess, the (RETURN)."
 340 PRINT
 350 INPUT g$
 360 IF g$ = "N" THEN 170
 370 IF LEN(g$) > LEN(w$) THEN  PRINT "Guess too long!": GOTO 280
 380 IF LEN(g$) < LEN(w$) THEN  PRINT "Guess too short!": GOTO 280
 390 PRINT " ";
 400 FOR x = 1 TO LEN(w$)
 410 IF MID$(g$, x, 1) = MID$(u$, x, 1) THEN  GOSUB 480
 420 IF MID$(g$, x, 1) <> MID$(u$, x, 1) THEN  GOSUB 510
 430 NEXT x
 440 PRINT
 450 IF r = LEN(g$) THEN 530
 460 g = g+1
 470 GOTO 310
 479 REM  *** correct letter routine ***
 480 PRINT "1";
 490 r = r+1
 500 RETURN
 509 REM  *** incorrect letter routine ***
 510 PRINT "0";
 520 RETURN
 530 HOME
 540 PRINT "You got it in "; g; " turn(s)!"
 550 PRINT
 560 PRINT "Press any key to play again."
 570 GET n$
 580 GOTO 170
1000 DATA  LETCICER,69,76,69,67,84,82,73,67,SGEAROOUUT,79,85,84,82,65,
71,69,79
1010 DATA  85,83,ACTANPEUOL,67,65,78,84,65,76,79,85,80,69
1020 DATA  LABTEKSABL,66,65,83,75,69,84,66,65,76,76
1030 DATA  TANIRUC,67,85,82,84,65,73,78,TAMELPAC,80,76,65,67,69,77,65,84
1040 DATA  ONUSHCI,67,85,83,72,73,79,78,WOLCRADY,67,79,87,65,82,68,76,89
1050 DATA  DELIS,83,76,73,68,69,TARIUG,71,85,73,84,65,82,OWELT,84,79,87,
69,76
1060 DATA  MUTESOC,67,79,83,84,85,77,69,YOGOILB,66,73,79,76,79,71,89
1070 DATA  ACRTEP,67,65,82,80,69,84,ARERES,69,82,65,83,69,82
1080 DATA  ELTKET,75,69,84,84,76,69,REUICTP,80,73,67,84,85,82,69
1090 DATA  IISGNYF,83,73,71,78,73,70,89,ORDAI,82,65,68,73,79
1100 DATA  ZEERPAT,84,82,65,80,69,90,69,O
```

Apple II and Apple IIe

```
1  REM  *** WORD SCRAMBLE  APPLE ***
10  HOME
20  PRINT "WORD SCRAMBLE"
30  PRINT
40  PRINT "TRY TO UNSCRAMBLE WORDS BY TYPING"
50  PRINT "IN GUESSES.  THE COMPUTER WILL SHOW YOU"
60  PRINT "WHICH LETTERS ARE IN THE CORRECT PLACES."
70  PRINT
80  PRINT "EXAMPLE: THE COMPUTER PRINTS : SUEGS"
90  PRINT "THE ACTUAL WORD IS GUESS."
100  PRINT "IF YOU TYPE: GEUSS, THE COMPUTER WILL"
```

```
110  PRINT "RESPOND WITH '10011', MEANING THE"
120  PRINT "FIRST, FOURTH, AND FIFTH LETTERS ARE"
130  PRINT "IN THE CORRECT LOCATIONS."
140  PRINT
150  PRINT "PRESS ANY KEY TO CONTINUE."
160  GET N$
170 U$ = ""
179  REM  *** READ SCRAMBLED WORD ***
180  READ W$
190  IF W$ = "0" THEN  RUN
199  REM  *** READ ACTUAL WORD ***
200  FOR X = 1 TO  LEN (W$)
210  READ CH(X)
220 U$ = U$ +  CHR$ (CH(X))
230  NEXT X
240 G = 1
250  HOME
260  PRINT "PRESS 'N' THEN (RETURN) FOR A NEW WORD"
269  REM  *** GUESS LOOP ***
270  PRINT
280  PRINT "THE SCRAMBLED WORD IS:"
290  PRINT
300  PRINT "  "W$
310  PRINT
320 R = 0
330  PRINT "TYPE YOUR GUESS, THEN PRESS (RETURN)."
340  PRINT
350  INPUT G$
360  IF G$ = "N" THEN 170
370  IF  LEN (G$) >  LEN (W$) THEN  PRINT "GUESS TOO LONG!": GOTO 280
380  IF  LEN (G$) <  LEN (W$) THEN  PRINT "GUESS TOO SHORT!": GOTO 280
390  PRINT " ";
400  FOR X = 1 TO  LEN (W$)
410  IF  MID$ (G$,X,1) =  MID$ (U$,X,1) THEN  GOSUB 480
420  IF  MID$ (G$,X,1) <  > MID$ (U$,X,1) THEN  GOSUB 510
430  NEXT X
440  PRINT
450  IF R =  LEN (G$) THEN 530
460 G = G + 1
470  GOTO 310
479  REM  *** CORRECT LETTER ROUTINE ***
480  PRINT "1";
490 R = R + 1
500  RETURN
509  REM  *** INCORRECT LETTER ROUTINE ***
510  PRINT "0":
520  RETURN
530  HOME
540  PRINT "YOU GOT IT IN "G" TURN(S)!"
550  PRINT
560  PRINT "PRESS ANY KEY TO PLAY AGAIN."
570  GET N$
580  GOTO 170
1000  DATA  LETCICER,69,76,69,67,84,82,73,67,SGEARDOUUT,79,85,84,82,65,
     71,69,79
1010  DATA  85,83,ACTANPEUOL,67,65,78,84,65,76,79,85,80,69
1020  DATA  LABTEKSABL,66,65,83,75,69,84,66,65,76,76
1030  DATA   TANIRUC,67,85,82,84,65,73,78,TAMELPAC,80,76,65,67,69,77,
     65,84
```

```
1040  DATA  ONUSHCI,67,85,83,72,73,79,78,WOLCRADY,67,79,87,65,82,68,
      76,89
1050  DATA  DELIS,83,76,73,68,69,TARIUG,71,85,73,84,65,82,OWELT,84,79,
      87,69,76
1060  DATA  MUTESOC,67,79,83,84,85,77,69,YOGOILB,66,73,79,76,79,71,89
1070  DATA  ACRTEP,67,65,82,80,69,84,ARERES,69,82,65,83,69,82
1080  DATA  ELTKET,75,69,84,84,76,69,REUICTP,80,73,67,84,85,82,69
1090  DATA  IISGNYF,83,73,71,78,73,70,89,ORDAI,82,65,68,73,79
1100  DATA  ZEERPAT,84,82,65,80,69,90,69,0
```

Atari

```
1 REM *** WORD SCRAMBLE ATARI ***
10 DIM U$(11),G$(15),W$(11)
20 DIM TEMP$(1),R$(1)
30 PRINT CHR$(125)
40 PRINT "WORD SCRAMBLE"
50 PRINT
60 PRINT "TRY TO UNSCRAMBLE WORDS BY TYPING"
70 PRINT "YOUR GUESSES.  THE COMPUTER"
80 PRINT "SHOWS YOU WHICH LETTERS ARE"
90 PRINT "IN THE CORRECT PLACES."
100 PRINT
110 PRINT "EXAMPLE: THE COMPUTER PRINTS: SUEGS"
120 PRINT "THE ACTUAL WORD IS GUESS."
130 PRINT "IF YOU TYPE: GEUSS, THE COMPUTER WILL"
140 PRINT "RESPOND WITH '10011', MEANING THE"
150 PRINT "FIRST, FOURTH, AND FIFTH LETTERS"
160 PRINT "ARE IN THE CORRECT LOCATIONS."
170 PRINT "PRESS (RETURN) TO CONTINUE."
180 GOSUB 2000
190 U$=""
199 REM *** READ SCRAMBLE WORD ***
200 READ W$
210 IF W$="0" THEN RUN
219 REM *** READ ACTUAL WORD ***
220 FOR X=1 TO LEN(W$)
230 READ CH
240 TEMP$=CHR$(CH)
250 U$(X,X)=TEMP$
260 NEXT X
270 G=1
280 PRINT CHR$(125)
290 PRINT "PRESS 'N' THEN (RETURN) FOR NEW WORD"
299 REM *** GUESS LOOP ***
300 PRINT
310 PRINT "THE SCRAMBLED WORD IS:"
320 PRINT
330 PRINT W$
340 PRINT
350 R=0
360 PRINT "TYPE YOUR GUESS,  THEN PRESS (RETURN)";
380 INPUT G$
390 IF G$="N" THEN 190
400 IF LEN(G$)>LEN(W$) THEN PRINT "GUESS TOO LONG!":GOTO 310
410 IF LEN(G$)<LEN(W$) THEN PRINT "GUESS TOO SHORT!":GOTO 310
420 PRINT
430 FOR X=1 TO LEN(W$)
440 IF G$(X,X)=U$(X,X) THEN GOSUB 510
450 IF G$(X,X)<>U$(X,X) THEN GOSUB 540
```

```
460 NEXT X
470 PRINT
480 IF R=LEN(G$) THEN 560
490 G=G+1
500 GOTO 300
509 REM *** CORRECT LETTER ROUTINE ***
510 PRINT "1";
520 R=R+1
530 RETURN
539 REM *** INCORRECT LETTER ROUTINE ***
540 PRINT "O";
550 RETURN
560 PRINT CHR$(125)
570 PRINT "YOU GOT IT IN ";G;" TURN(S)!"
580 PRINT
590 PRINT "PRESS (RETURN) TO PLAY AGAIN."
600 GOSUB 2000
610 GOTO 190
1000 DATA LETCICER,69,76,69,67,84,82,73,67,SGEAROOUUT,79,85,84,82,65,
71,69,79
1010 DATA 85,83,SCTANPEUOL,67,65,78,84,65,76,79,85,80,69
1020 DATA LABTEKSABL,66,65,83,75,69,84,66,65,76,76
1030 DATA TANIRUC,67,85,82,04,65,73,78,TAMELPAC,80,76,65,67,69,77,65,84
1040 DATA ONUSHCI,67,85,83,72,73,79,78,WOLCRADY,67,79,87,65,82,68,76,89
1050 DATA DELIS,83,76,73,68,69,TARIUG,71,85,73,84,65,82,OWELT,84,79,87,
69,76
1060 DATA MUTESOC,67,79,83,84,85,77,69,TOOOILB,66,73,79,76,79,71,89
1070 DATA ACRTEP,67,65,82,80,69,84,ARERES,69,82,65,83,69,82
1080 DATA ELTKET,75,69,84,84,76,69,REUICTP,80,73,67,84,85,82,69
1090 DATA IISGNYF,83,73,71,78,73,70,89,ORDAI,82,65,68,73,79
1100 DATA ZEERPAT,84,82,65,80,69,90,69,0
1999 REM *** WAIT ROUTINE ***
2000 INPUT R$
2010 RETURN
```

IBM PC

```
10 REM *** WORD SCRAMBLE IBM PC ***
20 CLS
30 PRINT "WORD SCRAMBLE"
40 PRINT
50 PRINT "UNSCRAMBLE WORDS BY TYPING"
60 PRINT "YOUR GUESSES.  THE COMPUTER"
70 PRINT "SHOWS YOU WHICH LETTERS ARE"
80 PRINT "CORRECT.  FOR EXAMPLE:"
90 PRINT
100 PRINT "THE COMPUTER PRINTS, 'SUEGS'."
110 PRINT "THE ACTUAL WORD IS 'GUESS'."
120 PRINT "IF YOU TYPE 'GEUSS', THE"
130 PRINT "COMPUTER WILL RESPOND WITH"
140 PRINT "'10011', MEANING THE FIRST,"
150 PRINT "FOURTH, & FIFTH LETTERS ARE IN"
160 PRINT "CORRECT LOCATIONS.  PRESS ANY"
170 PRINT "KEY TO BEGIN."
180 A$=INKEY$
190 IF A$="" THEN 180
200 U$=""
210 REM *** READ SCRAMBLED WORD ***
220 READ W$
230 IF W$="0" THEN RUN
```

```
240 FOR X=1 TO LEN(W$)
250 READ CH(X)
260 U$=U$+CHR$(CH(X))
270 NEXT X
280 G=1
290 CLS
300 PRINT "PRESS 'N' + (ENTER)"
310 PRINT "FOR A NEW WORD."
320 REM *** GUESS LOOP ***
330 PRINT
340 PRINT "THE SCRAMBLED WORD IS:"
350 PRINT
360 PRINT "   "W$
370 PRINT
380 R=0
390 PRINT "TYPE YOUR GUESS,"
400 PRINT  "THEN PRESS (ENTER)."
410 PRINT
420 INPUT G$
430 IF G$="N" THEN 200
440 IF LEN(G$)>LEN(W$) THEN PRINT "GUESS TOO LONG!":GOTO 340
450 IF LEN(G$)<LEN(W$) THEN PRINT "GUESS TOO SHORT!":GOTO 340
460 PRINT "   ";
470 FOR X=1 TO LEN(W$)
480 IF MID$(G$,X,1)=MID$(U$,X,1) THEN GOSUB 560
490 IF MID$(G$,X,1)<>MID$(U$,X,1) THEN GOSUB 600
500 NEXT X
510 PRINT
520 IF R=LEN(G$) THEN 620
530 G=G+1
540 GOTO 330
550 REM *** CORRECT LETTER ***
560 PRINT "1";
570 R=R+1
580 RETURN
590 REM *** INCORRECT LETTER  ***
600 PRINT "0";
610 RETURN
620 CLS
630 PRINT "GOT IT IN" "G" TURN(S)"
640 PRINT
650 PRINT "PRESS ANY KEY TO RUN AGAIN"
660 A$=INKEY$
670 IF A$="" THEN 660
680 GOTO 200
1000 DATA LETICICER,69,76,69,67,84,82,73,67
1010 DATA SGERAOOUUT,79,85,84,82,65,71,69,79,85,83
1020 DATA ACTANUFEUOL,67,65,78,84,65,76,79,85,80,69
1030 DATA ALBTENSABL,66,65,83,75,69,84,66,65,76,76
1040 DATA TANIRUC,67,85,82,84,65,73,78,TAMELPAC,80,76,65,67,69,77,65,84
1050 DATA ONUSCHT,67,85,83,72,73,79,78,WOLCRADY,67,79,87,65,82,68,76,89
1060 DATA DELIS,83,76,73,68,69,TARIUG,71,85,73,84,65,82,OWELT,84,79,87,
69,76
1070 DATA MUTESOC,67,79,83,84,85,77,69,YOGOILB,66,73,79,76,79,71,89
1080 DATA ACRTEP,67,65,82,80,69,84,ARERES,69,82,65,83,69,82
1090 DATA ELTKET,75,69,84,84,76,69,REUICTP,80,73,67,84,85,82,69
1100 DATA IISONYF,83,73,71,78,73,70,89,ORDAI,82,65,68,73,79
1110 DATA ZEERPAI,84,82,65,80,69,90,69,0
```

Commodore 64

```
1 REM *** WORD SCRAMBLE 64 ***
10 PRINT CHR$(147)
20 PRINT "WORD SCRAMBLE"
30 PRINT
40 PRINT "TRY TO UNSCRAMBLE WORDS BY TYPING"
50 PRINT "IN GUESSES.  THE COMPUTER WILL SHOW YOU"
60 PRINT "WHICH LETTERS ARE IN THE CORRECT PLACES."
70 PRINT
80 PRINT "EXAMPLE:  THE COMPUTER PRINTS, 'SUEGS'."
90 PRINT "THE ACTUAL WORD IS 'GUESS'."
100 PRINT "IF YOU TYPE 'GEUSS', THE COMPUTER WILL"
110 PRINT "RESPOND WITH '10011', MEANING THE"
120 PRINT "FIRST, FOURTH, AND FIFTH LETTERS ARE"
130 PRINT "IN THE CORRECT LOCATIONS."
140 PRINT
150 PRINT "PRESS (SHIFT) TO CONTINUE."
160 GOSUB 3000
170 U$=""
179 REM *** READ SCRAMBLED WORD ***
180 READ W$
190 IF W$="0" THEN RUN
199 REM *** READ ACTUAL WORD ***
200 FOR X=1 TO LEN(W$)
210 READ CH(X)
220 U$=U$+CHR$(CH(X))
230 NEXT X
240 G=1
250 PRINT CHR$(147)
260 PRINT "PRESS 'N' THEN (RETURN) FOR A NEW WORD"
269 REM *** GUESS LOOP ***
270 PRINT
280 PRINT "THE SCRAMBLED WORD IS:"
290 PRINT
300 PRINT "   "W$
310 PRINT
320 R=0
330 PRINT "TYPE YOUR GUESS, THEN PRESS (RETURN)."
340 PRINT
350 INPUT G$
360 IF G$="N" THEN 170
370 IF LEN(G$))LEN(W$) THEN PRINT "GUESS TOO LONG!":GOTO 280
380 IF LEN(G$)(LEN(W$) THEN PRINT "GUESS TOO SHORT!":GOTO 280
390 PRINT "   ";
400 FOR X=1 TO LEN(W$)
410 IF MID$(G$,X,1)=MID$(U$,X,1) THEN GOSUB 480
420 IF MID$(G$,X,1)()MID$(U$,X,1) THEN GOSUB 510
430 NEXT X
440 PRINT
450 IF R=LEN(G$) THEN 530
460 G=G+1
470 GOTO 270
479 REM *** CORRECT LETTER ROUTINE ***
480 PRINT "1";
490 R=R+1
500 RETURN
509 REM *** INCORRECT LETTER ROUTINE ***
```

```
510 PRINT "Ø";
520 RETURN
530 PRINT CHR$(147)
540 PRINT "YOU GOT IT IN"G"TURN(S)!"
550 PRINT
560 PRINT "PRESS (SHIFT) TO PLAY AGAIN."
570 GOSUB 3000
580 GOTO 170
1000 DATA LETCICER,69,76,69,67,84,82,73,67,SGEAROOUUT,79,85,84,82,65,71,
69,79
1010 DATA 85,83,ACTANPEUOL,67,65,78,84,65,76,79,85,80,69
1020 DATA LABTEKSABL,66,65,83,75,69,84,66,65,76,76
1030 DATA TANIRUC,67,85,82,84,65,73,78,TAMELPAC,80,76,65,67,69,77,65,84
1040 DATA ONUSHCI,67,85,83,72,73,79,78,WOLCRADY,67,79,87,65,82,68,76,89
1050 DATA DELIS,83,76,73,68,69,TARIUG,71,85,73,84,65,82,OWELT,84,79,87,
69,76
1060 DATA MUTESOC,67,79,83,84,85,77,69,YOGOILB,66,73,79,76,79,71,89
1070 DATA ACRTEP,67,65,82,80,69,84,ARERES,69,82,65,83,69,82
1080 DATA ELTKET,75,69,84,84,76,69,REUICTP,80,73,67,84,85,82,69
1090 DATA IISGNYF,83,73,71,78,73,70,89,ORDAI,82,65,68,73,79
1100 DATA ZEERPAT,84,82,65,80,69,90,69,Ø
3000 WAIT 653,1
3010 WAIT 653,1,1
3020 RETURN
```

TI-99/4A

```
1 REM *** WORD SCRAMBLE TI 99/4A ***
10 CALL CLEAR
20 PRINT "WORD SCRAMBLE"
30 PRINT
40 PRINT "UNSCRAMBLE WORDS BY"
50 PRINT "TYPING YOUR GUESSES."
60 PRINT "THE COMPUTER SHOWS"
70 PRINT "YOU WHICH LETTERS ARE"
80 PRINT "CORRECT.  FOR EXAMPLE:"
90 PRINT
100 PRINT "THE COMPUTER PRINTS,"
110 PRINT "'SEUGS'.  THE ACTUAL"
120 PRINT "WORD IS 'GUESS'."
130 PRINT "IF YOU TYPE 'GEUSS',"
140 PRINT "THE COMPUTER WILL RESPOND"
150 PRINT "WITH '10011', MEANING"
160 PRINT "THE FIRST, FOURTH, &"
170 PRINT "FIFTH LETTERS ARE IN"
180 PRINT "THE CORRECT LOCATIONS."
190 PRINT "PRESS (ENTER) TO PLAY"
200 INPUT R$
210 READ W$
220 IF W$="0" THEN 230 ELSE 250
230 RESTORE
240 GOTO 210
249 REM *** READ SCRAMBLED WORD ***
250 U$=""
260 FOR X=1 TO LEN(W$)
270 READ CH(X)
280 U$=U$&CHR$(CH(X))
290 NEXT X
300 N=1
310 CALL CLEAR
```

```
320 PRINT "PRESS N THEN (ENTER)"
330 PRINT "FOR A NEW WORD."
340 PRINT
349 REM *** GUESS LOOP ***
350 PRINT "THE SCRAMBLED WORD IS:"
360 PRINT
370 PRINT "  ";W$
380 PRINT
390 R=0
400 PRINT "TYPE IN YOUR GUESS,"
410 PRINT "THEN PRESS (ENTER)"
420 PRINT
430 INPUT G$
440 IF G$="N" THEN 210
450 IF LEN(G$)>LEN(W$)THEN 460 ELSE 480
460 PRINT "GUESS TOO LONG!"
470 GOTO 350
480 IF LEN(G$)<LEN(W$)THEN 490 ELSE 510
490 PRINT "GUESS TOO SHORT!"
500 GOTO 320
510 PRINT "  ";
520 FOR X=1 TO LEN(W$)
530 IF SEG$(G$,X,1)=SEG$(U$,X,1)THEN 540 ELSE 550
540 GOSUB 620
550 IF SEG$(G$,X,1)<>SEG$(U$,X,1)THEN 560 ELSE 570
560 GOSUB 650
570 NEXT X
580 PRINT
590 IF R=LEN(W$)THEN 670
600 N=N+1
610 GOTO 340
619 REM  *** CORRECT LETTER ***
620 PRINT "1";
630 R=R+1
640 RETURN
649 REM  *** INCORRECT LETTER ***
650 PRINT "0";
660 RETURN
670 CALL CLEAR
680 PRINT "GOT IT IN";N;"TURN(S)"
690 PRINT
700 PRINT "PRESS (ENTER) TO PLAY"
710 INPUT R$
720 GOTO 210
730 DATA LETCICER,69,76,69,67,84,82,73,67,SGEAROOUUT,79,85,84,82,65,71,
69,79,85,83
740 DATA ACTANPEUOL,67,65,78,84,65,76,79,85,80,69
750 DATA LABTEKSABL,66,65,83,75,69,84,66,65,76,76
760 DATA TANIRUC,67,85,82,84,65,73,78,TAMELPAC,80,76,65,67,69,77,65,84
770 DATA ONUSHCI,67,85,83,72,73,79,78,WOLCRADY,67,79,87,65,82,68,76,89
780 DATA DELIS,83,76,73,68,69,TARIUG,71,85,73,84,65,82,OWELT,84,79,87,
69,76
790 DATA MUTESOC,67,79,83,84,85,77,69,YOGOILB,66,73,79,76,79,71,89
800 DATA ACRTEP,67,65,82,80,69,84,ARERES,69,82,65,83,69,82
810 DATA ELTKET,75,69,84,84,76,69,REUICTP,80,73,67,84,85,82,69
820 DATA IISGNYF,83,73,71,78,73,70,89,ORDAI,82,65,68,73,79
830 DATA ZEERPAT,84,82,65,80,69,90,69,0
```

TRS-80 Color Computer

```
1 REM *** WORD SCRAMBLE TRS-80 COLOR ***
10 CLS
20 PRINT "WORD SCRAMBLE"
30 PRINT
40 PRINT "UNSCRAMBLE WORDS BY TYPING"
50 PRINT "YOUR GUESSES.  THE COMPUTER"
60 PRINT "SHOWS YOU WHICH LETTERS ARE"
70 PRINT "CORRECT.  FOR EXAMPLE:"
80 PRINT
90 PRINT "THE COMPUTER PRINTS, 'SEUGS'"
100 PRINT "THE ACTUAL WORD IS 'GUESS'."
110 PRINT "IF YOU TYPE 'GEUSS', THE"
120 PRINT "COMPUTER WILL RESPOND WITH"
130 PRINT "'10011', MEANING THE FIRST, "
140 PRINT "FOURTH, & FIFTH LETTERS ARE IN"
150 PRINT "CORRECT LOCATIONS.  PRESS ANY"
160 PRINT "KEY TO BEGIN."
170 A$=INKEY$
180 IF A$=""THEN 170
190 U$=""
199 REM *** READ SCRAMBLED WORD ***
200 READ W$
210 IF W$="0" THEN RUN
220 FOR X=1 TO LEN(W$)
230 READ CH(X)
240 U$=U$+CHR$(CH(X))
250 NEXT X
260 G=1
270 CLS
280 PRINT "PRESS 'N' + (ENTER)"
290 PRINT "FOR A NEW WORD."
299 REM *** GUESS LOOP ***
300 PRINT
310 PRINT "THE SCRAMBLED WORD IS:"
320 PRINT
330 PRINT "  "W$
340 PRINT
350 R=0
360 PRINT "TYPE YOUR GUESS,"
370 PRINT "THEN PRESS (ENTER)"
380 PRINT
390 INPUT G$
400 IF G$="N" THEN 190
410 IF LEN(G$)>LEN(W$) THEN PRINT "GUESS TOO LONG!":GOTO 310
420 IF LEN(G$)<LEN(W$) THEN PRINT "GUESS TOO SHORT!":GOTO 310
430 PRINT "  ";
440 FOR X=1 TO LEN(W$)
450 IF MID$(G$,X,1)=MID$(U$,X,1) THEN GOSUB 520
460 IF MID$(G$,X,1)<>MID$(U$,X,1) THEN GOSUB 550
470 NEXT X
480 PRINT
490 IF R=LEN(G$) THEN 570
500 G=G+1
510 GOTO 300
519 REM *** CORRECT LETTER ***
520 PRINT "1";
```

```
530 R=R+1
540 RETURN
549 REM *** INCORRECT LETTER ***
550 PRINT "0";
560 RETURN
570 CLS
580 PRINT "GOT IT IN "G" TURN(S)"
590 PRINT
600 PRINT "PRESS ANY KEY TO RUN AGAIN"
610 A$=INKEY$
620 IF A$="" THEN GOTO 610
630 GOTO 190
1000 DATA LETCICER,69,76,69,67,84,82,73,67
1010 DATA SGEAROOUUT,79,85,84,82,65,71,69,79,85,83
1020 DATA ACTANPEUOL,67,65,78,84,65,76,79,85,80,69
1030 DATA ALBTEKSABL,66,65,83,75,69,84,66,65,76,76
1040 DATA TANIRUC,67,85,82,84,65,73,78,TAMELPAC,80,76,65,67,69,77,65,84
1050 DATA ONUSHCI,67,85,83,72,73,79,78,WOLCRADY,67,79,87,65,82,68,76,89
1060 DATA DELIS,83,76,73,68,69,TARIUG,71,85,73,84,65,82,OWELT,84,79,87,
69,76
1070 DATA MUTESOC,67,79,83,84,85,77,69,YOGOILB,66,73,79,76,79,71,89
1080 DATA ACRTEP,67,65,82,80,69,84,ARERES,69,82,65,83,69,82
1090 DATA ELTKET,75,69,84,84,76,69,REUICTP,80,73,67,84,85,82,69
1100 DATA IISGNYF,83,73,71,78,73,70,89,ORDAI,82,65,68,73,79
1110 DATA ZEERPAT,84,82,65,80,69,90,69,0
```

TRS-80 Model III and Model 4

```
1 REM *** WORD SCRAMBLE TRS-80 MODELS 3 AND 4 ***
10 CLS
20 PRINT "WORD SCRAMBLE"
30 PRINT
40 PRINT "UNSCRAMBLE WORDS BY TYPING"
50 PRINT "YOUR GUESSES.  THE COMPUTER"
60 PRINT "SHOWS YOU WHICH LETTERS ARE"
70 PRINT "CORRECT.  FOR EXAMPLE:"
80 PRINT
90 PRINT "THE COMPUTER PRINTS, 'SEUGS'"
100 PRINT "THE ACTUAL WORD IS 'GUESS'."
110 PRINT "IF YOU TYPE 'GEUSS' THE "
120 PRINT "COMPUTER WILL RESPOND WITH"
130 PRINT "'10011', MEANING THE FIRST,"
140 PRINT "FOURTH, & FIFTH LETTERS ARE IN"
150 PRINT "CORRECT LOCATIONS.  PRESS ANY"
160 PRINT "KEY TO BEGIN."
170 A$=INKEY$
180 IF A$="" THEN 170
190 U$=""
199 REM *** READ SCRAMBLED WORD ***
200 READ W$
210 IF W$="0" THEN RUN
220 FOR X=1 TO LEN(W$)
230 READ CH(X)
240 U$=U$+CHR$(CH(X))
250 NEXT X
260 G=1
270 CLS
280 PRINT "PRESS 'N' + (ENTER)
290 PRINT "FOR A NEW WORD."
299 REM *** GUESS LOOP ***
```

```
300 PRINT
310 PRINT "THE SCRAMBLED WORD IS:"
320 PRINT
330 PRINT "   "W$
340 PRINT
350 R=0
360 PRINT "TYPE YOUR GUESS,"
370 PRINT "THEN PRESS (ENTER)"
380 PRINT
390 INPUT G$
400 IF G$="N" THEN 190
410 IF LEN(G$)>LEN(W$) THEN PRINT "GUESS TOO LONG!":GOTO 310
420 IF LEN(G$)<LEN(W$) THEN PRINT "GUESS TOO SHORT!":GOTO 310
430 PRINT "   ";
440 FOR X=1 TO LEN(W$)
450 IF MID$(G$,X,1)=MID$(U$,X,1) THEN GOSUB 520
460 IF MID$(G$,X,1)<>MID$(U$,X,1) THEN GOSUB 550
470 NEXT X
480 PRINT
490 IF R=LEN(G$) THEN 570
500 G=G+1
510 GOTO 300
519 REM *** CORRECT LETTER ***
520 PRINT "1";
530 R=R+1
540 RETURN
549 REM *** INCORRECT LETTER ***
550 PRINT "0";
560 RETURN
570 CLS
580 PRINT "GOT IT IN "G" TURN(S)"
590 PRINT
600 PRINT "PRESS ANY KEY TO RUN AGAIN"
610 A$=INKEY$
620 IF A$="" THEN GOTO 610
630 GOTO 190
640 DATA LETCICER,69,76,69,67,84,82,73,67
650 DATA SGEAROOUUT,79,85,84,82,65,71,69,79,85,83
660 DATA ACTANPEUOL,67,65,78,84,65,76,79,85,80,69
670 DATA ALBTEKSABL,66,65,83,75,69,84,66,65,76,76
680 DATA TANIRUC,67,85,82,84,65,73,78,TAMELPAC,80,76,65,67,69,77,65,84
690 DATA ONUSHCI,67,85,83,72,73,79,78,WOLCRADY,67,79,87,65,82,68,76,89
700 DATA DELIS,83,76,73,68,69,TARIUG,71,85,73,84,65,82,OWELT,84,79,87,
69,76
710 DATA MUTESOC,67,79,83,84,85,77,69,YOGOILB,66,73,79,76,79,71,89
720 DATA ACRTEP,67,65,82,80,69,84,ARERES,69,82,65,83,69,82
730 DATA ELTKET,75,69,84,84,76,69,REUICTP,80,73,67,84,85,82,69
740 DATA IISGNYF,83,73,71,78,73,70,89,ORDAI,82,65,68,73,79
750 DATA ZEERPAT,84,82,65,80,69,90,69,0
```

VIC-20

```
1 REM *** WORD SCRAMBLE VIC-20 ***
10 PRINT CHR$(147)
20 PRINT "WORD SCRAMBLE"
30 PRINT
40 PRINT "UNSCRAMBLE WORDS BY"
50 PRINT "TYPING YOUR GUESSES."
60 PRINT "THE COMPUTER SHOWS"
70 PRINT "YOU WHICH LETTERS ARE"
```

```
80 PRINT "CORRECT. FOR EXAMPLE:"
90 PRINT
100 PRINT "THE COMPUTER PRINTS,"
110 PRINT "'SEUGS'. THE ACTUAL"
120 PRINT "WORD IS 'GUESS'. IF"
130 PRINT "YOU TYPE 'GEUSS', THE"
140 PRINT "COMPUTER WILL RESPOND"
150 PRINT "WITH '10011', MEANING"
160 PRINT "THE FIRST, FOURTH, &"
170 PRINT "FIFTH LETTERS ARE IN"
180 PRINT "THE CORRECT LOCATIONS."
190 PRINT "PRESS (SHIFT) TO PLAY"
200 GOSUB 3000
210 U$=""
219 REM *** READ SCRAMBLED WORD ***
220 READ W$
230 IF W$="0" THEN RUN
239 REM *** READ ACTUAL WORD ***
240 FOR X=1 TO LEN(W$)
250 READ CH(X)
260 U$=U$+CHR$(CH(X))
270 NEXT X
280 G=1
290 PRINT CHR$(147)
300 PRINT "PRESS 'N' + (RETURN)"
310 PRINT "FOR A NEW WORD."
319 REM *** GUESS LOOP ***
320 PRINT
330 PRINT "THE SCRAMBLED WORD IS:"
340 PRINT
350 PRINT "   "W$
360 PRINT
370 R=0
380 PRINT "TYPE YOUR GUESS, THEN PRESS (RETURN)"
390 PRINT
400 INPUT G$
410 IF G$="N" THEN 210
420 IF LEN(G$))LEN(W$) THEN PRINT "GUESS TOO LONG!":GOTO 330
430 IF LEN(G$)(LEN(W$) THEN PRINT "GUESS TOO SHORT!":GOTO 330
440 PRINT "   ";
450 FOR X=1 TO LEN(W$)
460 IF MID$(G$,X,1)=MID$(U$,X,1) THEN GOSUB 530
470 IF MID$(G$,X,1)()MID$(U$,X,1) THEN GOSUB 560
480 NEXT X
490 PRINT
500 IF R=LEN(G$) THEN 580
510 G=G+1
520 GOTO 320
529 REM *** CORRECT LETTER ROUTINE ***
530 PRINT "1";
540 R=R+1
550 RETURN
559 REM *** INCORRECT LETTER ROUTINE ***
560 PRINT "0";
570 RETURN
580 PRINT CHR$(147)
590 PRINT "GOT IT IN"G"TURN(S)"
600 PRINT
610 PRINT "PRESS (SHIFT) TO PLAY"
```

```
620 GOSUB 3000
630 GOTO 210
1000 DATA LETCICER,69,76,69,67,84,82,73,67,SGEAROOUUT,79,85,84,82,65,71,
69,79
1010 DATA 85,83,ACTANPEUOL,67,65,78,84,65,76,79,85,80,69
1020 DATA LABTEKSABL,66,65,83,75,69,84,66,65,76,76
1030 DATA TANIRUC,67,85,82,84,65,73,78,TAMELPAC,80,76,65,67,69,77,65,84
1040 DATA ONUSHCI,67,85,83,72,73,79,78,WOLCRADY,67,79,87,65,82,68,76,89
1050 DATA DELIS,83,76,73,68,69,TARIUG,71,85,73,84,65,82,OWELT,84,79,87,
69,76
1060 DATA MUTESOC,67,79,83,84,85,77,69,YOGOILB,66,73,79,76,79,71,89
1070 DATA ACRTEP,67,65,82,80,69,84,ARERES,69,82,65,83,69,82
1080 DATA ELTKET,75,69,84,84,76,69,REUICTP,80,73,67,84,85,82,69
1090 DATA IISGNYF,83,73,71,78,73,70,89,ORDAI,82,65,68,73,79
1100 DATA ZEERPAT,84,82,65,80,69,90,69,0
3000 WAIT 653,1
3010 WAIT 653,1,1
3020 RETURN
```

BONUS PROGRAM #4

SECRET CODES

Now SECRET CODES can be sent between you and a pal. And no one will know what you're saying...without the SECRET CODE encoder/decoder program. To use it convert a message into code by selecting ENCODE from the menu. Then type your message in normal English. Next, write the encoded message down as it appears on the computer screen. Return it the main menu and select DECODE. Then type the encoded message you wrote, and watch the computer decode the message. This program will decode all letters and numbers, question marks, periods, and spaces. Commas aren't allowed and may cause errors on some computers.

ADAM

```
  1 REM  *** SECRET CODE  ADAM ***
  9 REM  *** dimension code arrays ***
 10 DIM a$(39)
 20 DIM c$(39)
 29 REM  *** initialize code arrays ***
 30 FOR x = 1 TO 39
 40 READ a$(x)
 50 READ c$(x)
 60 NEXT x
 69 REM  *** main menu ***
 70 HOME
 80 PRINT "SECRET CODE PROGRAM"
 90 PRINT
100 PRINT "Type the number of your choice"
110 PRINT "then press (RETURN)."
120 PRINT
130 PRINT "1)Encode a message"
140 PRINT "2)Decode a message"
150 PRINT
160 INPUT "Which one: "; ch
170 IF ch < 1 OR ch > 2 THEN 160
180 ON ch GOTO 200, 500
199 REM  *** encode routine ***
200 HOME
210 PRINT "Type your message, two lines"
220 PRINT "max. at one time please!  Use"
225 PRINT "only CAPITALS and no commas!"
230 PRINT "Type '0' and press (RETURN)"
240 PRINT "to go to the main menu."
250 PRINT
260 PRINT "What is your message"
270 INPUT m$
280 IF m$ = "0" THEN 70
290 PRINT
300 PRINT "Now encoding..."
310 PRINT
320 PRINT "Here's the code:"
```

```
330 PRINT
340 FOR x = 1 TO LEN(m$)
350 FOR m = 1 TO 39
360 IF MID$(m$, x, 1) = a$(m) THEN  PRINT c$(m);
370 NEXT m
380 NEXT x
390 PRINT
400 PRINT
410 PRINT "Press any key to continue."
420 GET n$
430 GOTO 70
499 REM  *** decode routine ***
500 HOME
510 PRINT "Type your coded message, two lines"
520 PRINT "max. at one time please!"
525 PRINT "Use only CAPITALS."
530 PRINT "Type '0' and press (RETURN)"
540 PRINT "to return to the main menu."
550 PRINT
560 PRINT "What is the coded message"
570 INPUT c$
580 IF c$ = "0" THEN 70
590 PRINT
600 PRINT "Now decoding..."
610 PRINT
620 PRINT "Here's the message:"
630 PRINT
640 FOR x = 1 TO LEN(c$)
650 FOR m = 1 TO 39
660 IF MID$(c$, x, 1) = c$(m) THEN  PRINT a$(m);
670 NEXT m
680 NEXT x
690 PRINT
700 PRINT
710 PRINT "Press any key to continue."
720 GET n$
730 GOTO 70
1000 DATA  A,F," "," ",B,H,C,U,D,Y,E,Z,F,O,G,J,H,L
1010 DATA  I,Q,J,S,K,W,L,A,M,C,N,M,O,T,P,V,Q,P
1020 DATA  R,K,S,D,T,G,U,B,V,E,W,I,X,N,Y,X,Z,R
1030 DATA  .,.,0,9,1,7,2,3,3,0,4,2,5,1
1040 DATA  6,4,7,5,8,6,9,8,?,?
```

Apple II and Apple IIe

```
1  REM  *** SECRET CODE  APPLE ***
9  REM  *** DIMENSION CODE ARRAYS ***
10  DIM A$(39)
20  DIM C$(39)
29  REM  *** INITIALIZE CODE ARRAYS ***
30  FOR X = 1 TO 39
40  READ A$(X)
50  READ C$(X)
60  NEXT X
69  REM  *** MAIN MENU ***
70  HOME
80  PRINT "SECRET CODE PROGRAM"
90  PRINT
100  PRINT "TYPE THE NUMBER OF YOUR CHOICE"
```

```
110  PRINT "THEN PRESS (RETURN)."
120  PRINT
130  PRINT "1)ENCODE A MESSAGE"
140  PRINT "2)DECODE A MESSAGE"
150  PRINT
160  INPUT "WHICH ONE: ";CH
170  IF CH < 1 OR CH > 2 THEN 160
180  ON CH GOTO 200,500
199  REM  *** ENCODE ROUTINE ***
200  HOME
210  PRINT "TYPE YOUR MESSAGE, TWO LINES"
220  PRINT "MAX. AT ONE TIME PLEASE!"
225  PRINT "NO COMMAS ALLOWED!"
230  PRINT "TYPE '0' AND PRESS (RETURN)"
240  PRINT "TO GO TO THE MAIN MENU."
250  PRINT
260  PRINT "WHAT IS YOUR MESSAGE"
270  INPUT M$
280  IF M$ = "0" THEN 70
290  PRINT
300  PRINT "NOW ENCODING..."
310  PRINT
320  PRINT "HERE'S THE CODE:"
330  PRINT
340  FOR X = 1 TO  LEN (M$)
350  FOR M = 1 TO 39
360  IF  MID$ (M$,X,1) = A$(M) THEN  PRINT C$(M);
370  NEXT M
380  NEXT X
390  PRINT
400  PRINT
410  PRINT "PRESS ANY KEY TO CONTINUE."
420  GET N$
430  GOTO 70
499  REM  *** DECODE ROUTINE ***
500  HOME
510  PRINT "TYPE YOUR CODED MESSAGE, TWO LINES"
520  PRINT "MAX. AT ONE TIME PLEASE!"
530  PRINT "TYPE '0' AND PRESS (RETURN)"
540  PRINT "TO RETURN TO THEN MAIN MENU."
550  PRINT
560  PRINT "WHAT IS THE CODED MESSAGE"
570  INPUT C$
580  IF C$ = "0" THEN 70
590  PRINT
600  PRINT "NOW DECODING..."
610  PRINT
620  PRINT "HERE'S THE MESSAGE:"
630  PRINT
640  FOR X = 1 TO  LEN (C$)
650  FOR M = 1 TO 39
660  IF  MID$ (C$,X,1) = C$(M) THEN  PRINT A$(M);
670  NEXT M
680  NEXT X
690  PRINT
700  PRINT
710  PRINT "PRESS ANY KEY TO CONTINUE."
720  GET N$
730  GOTO 70
```

```
1000  DATA  A,F," "," ",B,H,C,U,D,Y,E,Z,F,O,G,J,H,L
1010  DATA  I,Q,J,S,K,W,L,A,M,C,N,M,O,T,P,V,Q,P
1020  DATA  R,K,S,D,T,G,U,B,V,E,W,I,X,N,Y,X,Z,R
1030  DATA  .,.,O,9,1,7,2,3,3,O,4,2,5,1
1040  DATA  6,4,7,5,8,6,9,8,?,?
```

Atari

```
1 REM *** SECRET CODE ATARI ***
9 REM *** DIMENSION CODE ARRAYS ***
10 DIM M$(1200),N$(1200)
20 DIM C$(39),A$(39)
30 DIM R$(1),A1$(1),C1$(1)
39 REM *** INITIALIZE CODE ARRAYS ***
40 FOR X=1 TO 39
50 READ A1$
60 A$(X)=A1$
70 READ C1$
80 C$(X)=C1$
90 NEXT X
99 REM *** MAIN MENU ***
100 PRINT CHR$(125)
110 PRINT "SECRET CODE PROGRAM"
120 PRINT
130 PRINT "TYPE THE NUMBER OF YOUR CHOICE"
140 PRINT "THEN PRESS THE (RETURN) KEY."
150 PRINT
160 PRINT "1)ENCODE A MESSAGE"
170 PRINT "2)DECODE A MESSAGE"
180 PRINT
190 PRINT "WHICH ONE";
200 INPUT CH
210 IF CH<1 OR CH>2 THEN 190
220 ON CH GOTO 230,500
229 REM *** ENCODE ROUTINE ***
230 PRINT CHR$(125)
240 PRINT "TYPE YOUR MESSAGE, TWO LINES,"
250 PRINT "MAXIMUM AND NO COMMAS PLEASE!"
260 PRINT "TYPE 'O' AND PRESS (RETURN)"
270 PRINT "TO THE MAIN MENU."
280 PRINT
290 PRINT "WHAT IS YOUR MESSAGE"
300 INPUT M$
310 IF M$="O" THEN 100
320 PRINT
330 PRINT "NOW ENCODING..."
340 PRINT
350 PRINT "HERE'S THE CODE:"
360 PRINT
370 FOR S=1 TO LEN(M$)
380 FOR M=1 TO 39
390 IF M$(S,S)=A$(M,M) THEN PRINT C$(M,M);
400 NEXT M
410 NEXT S
420 PRINT
430 PRINT
440 PRINT "PRESS (RETURN) TO CONTINUE.";
450 GOSUB 2000
460 GOTO 100
499 REM *** DECODE ROUTINE ***
```

```
500 PRINT CHR$(125)
510 PRINT "TYPE YOUR CODED MESSAGE, TWO LINES"
520 PRINT "MAXIMUM - NO COMMAS PLEASE!"
530 PRINT "TYPE 'O' AND PRESS (RETURN)"
540 PRINT "TO RETURN TO THE MAIN MENU."
550 PRINT
560 PRINT "WHAT IS THE CODED MESSAGE"
570 INPUT N$
580 IF N$="O" THEN 100
590 PRINT
600 PRINT "NOW DECODING...."
610 PRINT
620 PRINT "HERE'S THE MESSAGE:"
630 PRINT
640 FOR X=1 TO LEN(N$)
650 FOR M=1 TO 39
660 IF N$(X,X)=C$(M,M) THEN PRINT A$(M,M);
670 NEXT M
680 NEXT X
690 PRINT
700 PRINT
710 PRINT "PRESS (RETURN) TO CONTINUE.";
720 GOSUB 2000
730 GOTO 100
1000 DATA A,F, , ,B,H,C,U,D,Y,E,Z,F,O,G,J,H,L
1010 DATA I,Q,J,S,K,W,L,A,M,C,N,M,O,T,P,V,Q,P
1020 DATA R,K,S,D,T,G,U,B,V,E,W,I,X,N,Y,X,Z,R
1030 DATA .,.,0,9,1,7,2,3,3,0,4,2,5,1
1040 DATA 6,4,7,5,8,6,9,8,?,?
1999 REM *** INPUT ROUTINE ***
2000 INPUT R$
2010 RETURN
```

Commodore 64

```
1 REM *** SECRET CODE 64 ***
9 REM *** DIMENSION CODE ARRAYS ***
10 DIM A$(39)
20 DIM C$(39)
29 REM *** INITIALIZE CODE ARRAYS ***
30 FOR X=1 TO 39
40 READ A$(X)
50 READ C$(X)
60 NEXT X
69 REM *** LE MAIN MENU ***
70 PRINT CHR$(147)
80 PRINT "SECRET CODE PROGRAM"
90 PRINT
100 PRINT "TYPE THE NUMBER OF YOUR CHOICE"
110 PRINT "THEN PRESS THE (RETURN) KEY."
120 PRINT
130 PRINT "1)ENCODE A MESSAGE"
140 PRINT "2)DECODE A MESSAGE"
150 PRINT
160 INPUT "WHICH ONE";CH
170 IF CH<1 OR CH>2 THEN 160
180 ON CH GOTO 200,500
199 REM *** ENCODE ROUTINE ***
200 PRINT CHR$(147)
```

```
210 PRINT "TYPE YOUR MESSAGE, TWO LINES"
220 PRINT "MAXIMUM.  NO COMMAS ALLOWED!"
230 PRINT "TYPE '0' AND PRESS (RETURN)"
240 PRINT "TO GO TO THE MAIN MENU."
250 PRINT
260 PRINT "WHAT IS YOUR MESSAGE"
270 INPUT M$
280 IF M$="0" THEN 70
290 PRINT
300 PRINT "NOW ENCODING...."
310 PRINT
320 PRINT "HERE'S THE CODE:"
330 PRINT
340 FOR X=1 TO LEN(M$)
350 FOR M=1 TO 39
360 IF MID$(M$,X,1)=A$(M) THEN PRINT C$(M);
370 NEXT M
380 NEXT X
390 PRINT
400 PRINT
410 PRINT "PRESS (SHIFT) TO CONTINUE."
420 GOSUB 3000
430 GOTO 70
499 REM *** DECODE ROUTINE ***
500 PRINT CHR$(147)
510 PRINT "TYPE YOUR CODED MESSAGE, TWO LINES"
520 PRINT "MAX. AT ONE TIME, PLEASE!"
530 PRINT "TYPE '0' AND PRESS (RETURN)"
540 PRINT "TO RETURN TO THE MAIN MENU."
550 PRINT
560 PRINT "WHAT IS THE CODED MESSAGE"
570 INPUT C$
580 IF C$="0" THEN 70
590 PRINT
600 PRINT "NOW DECODING...."
610 PRINT
620 PRINT "HERE'S THE MESSAGE:"
630 PRINT
640 FOR X=1 TO LEN(C$)
650 FOR M=1 TO 39
660 IF MID$(C$,X,1)=C$(M) THEN PRINT A$(M);
670 NEXT M
680 NEXT X
690 PRINT
700 PRINT
710 PRINT "PRESS (SHIFT) TO CONTINUE."
720 GOSUB 3000
730 GOTO 70
1000 DATA A,F," "," ",B,H,C,U,D,Y,E,Z,F,O,G,J,H,L
1010 DATA I,Q,J,S,K,W,L,A,M,C,N,M,O,T,P,V,Q,P
1020 DATA R,K,S,D,T,G,U,B,V,E,W,I,X,N,Y,X,Z,R
1030 DATA .,.,0,9,1,7,2,3,3,0,4,2,5,1
1040 DATA 6,4,7,5,8,6,9,8,?,?
2999 REM *** WAIT ROUTINE ***
3000 WAIT 653,1
3010 WAIT 653,1,1
3020 RETURN
```

IBM PC

```
1 REM *** SECRET CODE IBM-PC ***
9 REM *** DIMENSION CODE ARRAYS ***
10 DIM A$(64)
20 DIM C$(64)
30 FOR X=1 TO 40
40 READ A$(X)
50 READ C$(X)
60 NEXT X
69 REM *** MAIN MENU ***
70 CLS
80 PRINT "SECRET CODE PROGRAM"
90 PRINT
100 PRINT "SECRET CODE PROGRAM"
110 PRINT "THEN PRESS (ENTER)."
120 PRINT
130 PRINT "1)ENCODE A MESSAGE"
140 PRINT "2)DECODE A MESSAGE"
150 PRINT
160 INPUT "WHICH ONE";CH
170 IF CH<1 OR CH>2 THEN 160
180 ON CH GOTO 200,500
199 REM *** ENCODE ROUTINE ***
200 CLS
210 PRINT "TYPE YOUR MESSAGE"
220 PRINT "2 LINES MAXIMUM AT A TIME"
230 PRINT "OR TYPE `0' AND PRESS"
240 PRINT "(ENTER) FOR MENU."
250 PRINT
260 PRINT "WHAT IS YOUR MESSAGE"
270 INPUT M$
280 IF M$="0" THEN 70
290 PRINT
300 PRINT "NOW ENCODING..."
310 PRINT
320 PRINT "HERE'S THE CODE:"
330 PRINT
340 FOR X=1 TO LEN(M$)
350 FOR M=1 TO 40
360 IF MID$(M$,X,1)=A$(M) THEN PRINT C$(M);
370 NEXT M
380 NEXT X
390 PRINT
400 PRINT
410 PRINT "PRESS (ENTER) TO CONTINUE"
420 GOSUB 3000
430 GOTO 70
499 REM *** DECODE ROUTINE ***
500 CLS
510 PRINT "TYPE A CODED MESSAGE"
520 PRINT "2 LINES MAXIMUM AT A TIME"
530 PRINT "OR TYPE `0' AND PRESS"
540 PRINT "(ENTER) FOR MENU."
550 PRINT
560 PRINT "WHAT IS THE CODE"
570 INPUT C$
580 IF C$="0" THEN 70
```

```
590 PRINT
600 PRINT "NOW DECODING..."
610 PRINT
620 PRINT "HERE'S THE MESSAGE:"
630 PRINT
640 FOR X=1 TO LEN(C$)
650 FOR M=1 TO 40
660 IF MID$(C$,X,1)=C$(M) THEN PRINT A$(M);;
670 NEXT M
680 NEXT X
690 PRINT
700 PRINT
710 PRINT "PRESS (ENTER) TO CONTINUE."
720 GOSUB 3000
730 GOTO 70
1000 DATA A,F," "," ",B,H,C,U,D,Y,E,Z,F,O,G,J,H,L
1010 DATA I,Q,J,S,K,W,L,A,M,C,N,M,O,T,P,V,Q,P
1020 DATA R,K,S,D,T,G,U,B,V,E,W,I,X,N,Y,X,Z,R
1030 DATA .,.,0,9,1,7,2,3,3,0,4,2,5,1
1040 DATA 6,4,7,5,8,6,9,8,",",",",?,?
3000 INPUT R$
3010 RETURN
```

TI-99/4A

```
1 REM *** SECRET CODE TI99/4A ***
9 REM *** DIMENSION CODE ARRAYS ***
10 DIM A$(41)
20 DIM C$(41)
30 FOR X=1 TO 39
40 READ A$(X)
50 READ C$(X)
60 NEXT X
69 REM *** MAIN MENU ***
70 CALL CLEAR
80 PRINT "SECRET CODE PROGRAM"
90 PRINT
100 PRINT "TYPE A NUMBER,"
110 PRINT "THEN PRESS (ENTER)."
120 PRINT
130 PRINT "1)ENCODE A MESSAGE"
140 PRINT "2)DECODE A MESSAGE"
150 PRINT
160 PRINT "WHICH ONE";
170 INPUT CH
180 IF CH<1 THEN 160
190 IF CH>2 THEN 160
200 ON CH GOTO 210,470
209 REM *** ENCODE ROUTINE ***
210 CALL CLEAR
220 PRINT "TYPE YOUR MESSAGE"
230 PRINT "2 LINES MAXIMUM PLEASE."
240 PRINT "NO COMMAS ALLOWED!"
250 PRINT "TYPE '0' AND PRESS"
260 PRINT "(ENTER) FOR MENU."
270 PRINT
280 PRINT "WHAT IS YOUR MESSAGE"
290 INPUT M$
300 IF M$="0" THEN 70
310 PRINT
```

```
320 PRINT "NOW ENCODING...."
330 PRINT
340 PRINT "HERE'S THE CODE:"
350 PRINT
360 FOR X=1 TO LEN(M$)
370 FOR M=1 TO 40
380 IF SEG$(M$,X,1)=A$(M)THEN 390 ELSE 400
390 PRINT C$(M);
400 NEXT M
410 NEXT X
420 PRINT
430 PRINT
440 PRINT "PRESS (ENTER) TO CONTINUE."
450 GOSUB 780
460 GOTO 70
469 REM *** DECODE ROUTINE ***
470 CALL CLEAR
480 PRINT "TYPE A CODED MESSAGE-"
490 PRINT "2 LINES MAXIMUM PLEASE."
500 PRINT "NO COMMAS ALLOWED!"
510 PRINT "TYPE 'O' AND PRESS"
520 PRINT "(ENTER) FOR MENU."
530 PRINT
540 PRINT "WHAT IS THE CODE"
550 INPUT CO$
560 IF CO$="O" THEN 70
570 PRINT
580 PRINT "NOW DECODING...."
590 PRINT
600 PRINT "HERE'S THE MESSAGE:"
610 PRINT
620 FOR X=1 TO LEN(CO$)
630 FOR M=1 TO 40
640 IF SEG$(CO$,X,1)=C$(M)THEN 650 ELSE 400
650 PRINT A$(M);
660 NEXT M
670 NEXT X
680 PRINT
690 PRINT
700 PRINT "PRESS (ENTER) TO CONT."
710 GOSUB 780
720 GOTO 70
730 DATA A,F," "," ",B,H,C,U,D,Y,E,Z,F,O,G,J,H,L
740 DATA I,Q,J,S,K,W,L,A,M,C,N,M,O,T,P,V,Q,P
750 DATA R,K,S,D,T,G,U,B,V,E,W,I,X,N,Y,X,Z,R
760 DATA .,.,0,9,1,7,2,3,3,0,4,2,5,1
770 DATA 6,4,7,5,8,6,9,8,?,?
780 INPUT R$
790 RETURN
```

TRS-80 Color Computer

```
1 REM *** SECRET CODE TRS-80 COLOR ***
9 REM *** DIMENSION CODE ARRAYS ***
10 DIM A$(40)
20 DIM C$(40)
30 FOR X=1 TO 39
40 READ A$(X)
50 READ C$(X)
60 NEXT X
```

```
69 REM *** MAIN MENU ***
70 CLS
80 PRINT "SECRET CODE PROGRAM"
90 PRINT
100 PRINT "TYPE A NUMBER"
110 PRINT "THEN PRESS (ENTER)."
120 PRINT
130 PRINT "1)ENCODE A MESSAGE"
140 PRINT "2)DECODE A MESSAGE"
150 PRINT
160 INPUT "WHICH ONE";CH
170 IF CH<1 OR CH>2 THEN 160
180 ON CH GOTO 200,500
199 REM *** ENCODE ROUTINE ***
200 CLS
210 PRINT "TYPE YOUR MESSAGE"
220 PRINT "2 LINES MAX. AT A TIME"
230 PRINT "OR TYPE '0' AND PRESS"
240 PRINT "(ENTER) FOR MENU."
250 PRINT
260 PRINT "WHAT IS YOUR MESSAGE"
270 INPUT M$
280 IF M$="0" THEN 70
290 PRINT
300 PRINT "NOW ENCODING...."
310 PRINT
320 PRINT "HERE'S THE CODE:"
330 PRINT
340 FOR X=1 TO LEN(M$)
350 FOR M=1 TO 39
360 IF MID$(M$,X,1)=A$(M) THEN PRINT C$(M);
370 NEXT M
380 NEXT X
390 PRINT
400 PRINT
410 PRINT "PRESS (ENTER) TO CONTINUE."
420 GOSUB 3000
430 GOTO 70
499 REM *** DECODE ROUTINE ***
500 CLS
510 PRINT "TYPE A CODED MESSAGE"
520 PRINT "2 LINES MAX. AT A TIME"
530 PRINT "OR TYPE '0' AND PRESS"
540 PRINT "(ENTER) FOR MENU."
550 PRINT
560 PRINT "WHAT IS THE CODE"
570 INPUT C$
580 IF C$="0" THEN 70
590 PRINT
600 PRINT "NOW DECODING...."
610 PRINT
620 PRINT "HERE'S THE MESSAGE:"
630 PRINT
640 FOR X=1 TO LEN(C$)
650 FOR M=1 TO 39
660 IF MID$(C$,X,1)=C$(M) THEN PRINT A$(M);
670 NEXT M
680 NEXT X
690 PRINT
```

```
700 PRINT
710 PRINT"PRESS (ENTER) TO CONT."
720 GOSUB 3000
730 GOTO 70
1000 DATA A,F," "," ",B,H,C,U,D,Y,E,Z,F,O,G,J,H,L
1010 DATA I,Q,J,S,K,W,L,A,M,C,N,M,O,T,P,V,Q,P
1020 DATA R,K,S,D,T,G,U,B,V,E,W,I,X,N,Y,X,Z,R
1030 DATA .,.,0,9,1,7,2,3,3,0,4,2,5,1
1040 DATA 6,4,7,5,8,6,9,8,?,?
3000 INPUT R$
3010 RETURN
```

TRS-80 Model III and Model 4

```
1 REM *** SECRET CODE TRS-80 MODELS 3 AND 4 BASIC ***
9 REM *** DIMENSION CODE ARRAYS ***
10 DIM A$(39)
20 DIM C$(39)
30 FOR X=1 TO 39
40 READ A$(X)
50 READ C$(X)
60 NEXT X
69 REM *** MAIN MENU ***
70 CLS
80 PRINT "SECRET CODE PROGRAM"
90 PRINT
100 PRINT "TYPE A NUMBER"
110 PRINT "THEN PRESS (ENTER)."
120 PRINT
130 PRINT "1)ENCODE A MESSAGE"
140 PRINT "2)DECODE A MESSAGE"
150 PRINT
160 INPUT "WHICH ONE";CH
170 IF CH<1 OR CH>2 THEN 160
180 ON CH GOTO 200,500
199 REM *** ENCODE ROUTINE ***
200 CLS
210 PRINT "TYPE YOUR MESSAGE"
220 PRINT "2 LINES MAX.(NO COMMAS)"
230 PRINT "OR TYPE '0' AND PRESS"
240 PRINT "(ENTER) FOR MENU."
250 PRINT
260 PRINT "WHAT IS YOUR MESSAGE"
270 INPUT M$
280 IF M$="0" THEN 70
290 PRINT
300 PRINT "NOW ENCODING...."
310 PRINT
320 PRINT "HERE'S THE CODE:"
330 PRINT
340 FOR X=1 TO LEN(M$)
350 FOR M=1 TO 39
360 IF MID$(M$,X,1)=A$(M) THEN PRINT C$(M);
370 NEXT M
380 NEXT X
390 PRINT
400 PRINT
410 PRINT "PRESS (ENTER) TO CONTINUE";
420 GOSUB 3000
430 GOTO 70
```

```
499 REM *** DECODE ROUTINE ***
500 CLS
510 PRINT "TYPE A CODED MESSAGE,"
520 PRINT "2 LINES MAX.(NO COMMAS)"
530 PRINT "OR TYPE '0' AND PRESS"
540 PRINT "(ENTER) FOR MENU."
550 PRINT
560 PRINT "WHAT IS THE CODE"
570 INPUT C$
580 IF C$="0" THEN 70
590 PRINT
600 PRINT "NOW DECODING...."
610 PRINT
620 PRINT "HERE'S THE MESSAGE:"
630 PRINT
640 FOR X=1 TO LEN(C$)
650 FOR M=1 TO 39
660 IF MID$(C$,X,1)=C$(M) THEN PRINT A$(M);
670 NEXT M
680 NEXT X
690 PRINT
700 PRINT
710 PRINT "PRESS (ENTER) TO CONTINUE";
720 GOSUB 3000
730 GOTO 70
1000 DATA A,F," "," ",B,H,C,U,D,Y,E,Z,F,O,G,J,H,L
1010 DATA I,Q,J,S,K,W,L,A,M,C,N,M,O,T,P,V,Q,P
1020 DATA R,K,S,D,T,G,U,B,V,E,W,I,X,N,Y,X,Z,R
1030 DATA .,.,0,9,1,7,2,3,3,0,4,2,5,1
1040 DATA 6,4,7,5,8,6,9,8,?,?
3000 INPUT R$
3020 RETURN
```

VIC-20

```
1 REM *** SECRET CODE VIC-20 ***
9 REM *** DIMENSION CODE ARRAYS ***
10 DIM A$(39)
20 DIM C$(39)
29 REM *** INITIALIZE CODE ARRAYS ***
30 FOR X=1 TO 39
40 READ A$(X)
50 READ C$(X)
60 NEXT X
69 REM *** MAIN MENU ***
70 PRINT CHR$(147)
80 PRINT "SECRET CODE PROGRAM"
90 PRINT
100 PRINT "TYPE A NUMBER,"
110 PRINT "THEN PRESS (RETURN)."
120 PRINT
130 PRINT "1)ENCODE A MESSAGE"
140 PRINT "2)DECODE A MESSAGE"
150 PRINT
160 INPUT "WHICH ONE";CH
170 IF CH<1 OR CH>2 THEN 160
180 ON CH GOTO 200,500
199 REM *** ENCODE ROUTINE ***
200 PRINT CHR$(147)
210 PRINT "TYPE YOUR MESSAGE"
```

```
220 PRINT "2 LINES MAX-NO COMMAS!"
230 PRINT "TYPE '0' AND PRESS"
240 PRINT "(RETURN) FOR MENU."
250 PRINT
260 PRINT "WHAT IS YOUR MESSAGE"
270 INPUT M$
280 IF M$="0" THEN 70
290 PRINT
300 PRINT "NOW ENCODING...."
310 PRINT
320 PRINT "HERE'S THE CODE:"
330 PRINT
340 FOR X=1 TO LEN(M$)
350 FOR M=1 TO 39
360 IF MID$(M$,X,1)=A$(M) THEN PRINT C$(M);
370 NEXT M
380 NEXT X
390 PRINT
400 PRINT
410 PRINT "PRESS (SHIFT) TO CONT."
420 GOSUB 3000
430 GOTO 70
499 REM *** DECODE ROUTINE ***
500 PRINT CHR$(147)
510 PRINT "TYPE A CODED MESSAGE,"
520 PRINT "2 LINES MAX-NO COMMAS!"
530 PRINT "TYPE '0' AND PRESS"
540 PRINT "(RETURN) FOR MENU."
550 PRINT
560 PRINT "WHAT IS THE CODE"
570 INPUT C$
580 IF C$="0" THEN 70
590 PRINT
600 PRINT "NOW DECODING...."
610 PRINT
620 PRINT "HERE'S THE MESSAGE:"
630 PRINT
640 FOR X=1 TO LEN(C$)
650 FOR M=1 TO 39
660 IF MID$(C$,X,1)=C$(M) THEN PRINT A$(M);
670 NEXT M
680 NEXT X
690 PRINT
700 PRINT
710 PRINT "PRESS (SHIFT) TO CONT."
720 GOSUB 3000
730 GOTO 70
1000 DATA A,F," "," ",B,H,C,U,D,Y,E,Z,F,O,G,J,H,L
1010 DATA I,Q,J,S,K,W,L,A,M,C,N,M,O,T,P,V,Q,P
1020 DATA R,K,S,D,T,G,U,B,V,E,W,I,X,N,Y,X,Z,R
1030 DATA .,.,0,9,1,7,2,3,3,0,4,2,5,1
1040 DATA 6,4,7,5,8,6,9,8,?,?
2999 REM *** WAIT ROUTINE ***
3000 WAIT 653,1
3010 WAIT 653,1,1
3020 RETURN
```

BONUS PROGRAM #5

GRAPHIC FANTASY

A GRAPHIC FANTASY is something that most people just dream of. But computers, besides being functional, can take you on wonderful graphic adventures. GRAPHIC FANTASY is a program that lets you enter the world of computer generated graphics. For many hours it generates patterned images (on most computers in radiant colors) and geometric shapes something akin to pyramids, oriental rugs, and the cells of plants.

ADAM

```
  1 REM  *** GRAPHIC FANTASY  ADAM ***
 10 GR: COLOR  = 1
 20 x = 1: y = 1: kol = 1
 30 xi = -1: yi = 1
 40 COLOR  = kol
 50 k = INT(RND(1)*100)
 60 IF k = 1 THEN  kol = kol+1
 70 IF kol > 15 THEN  kol = 1
 80 x = x+xi: y = y+yi
 90 IF x < 1 THEN  x = 1: xi = -xi
100 IF x > 19 THEN  x = 19: xi = -xi
110 IF y < 0 THEN  y = 0: yi = -yi
120 IF y > 19 THEN  y = 19: yi = -yi
130 PLOT x, y
140 PLOT x+19, y
150 PLOT x, y+20
160 PLOT x+19, y+20
170 GOTO 40
```

Apple II and Apple IIe

```
1  REM  *** GRAPHIC FANTASY  APPLE ***
2  REM  *** SHAPE TABLE INDEX ***
5  HOME : HGR2 : POKE 232,252: POKE 233,29
10 CB = 7676:Z = 4
20  POKE CB,8: POKE CB + 1,0
30  FOR LOC = 1 TO 8
40  POKE CB + (2 * LOC),(10 * LOC + 8)
50  POKE CB + (2 * LOC + 1),0
60  NEXT LOC
69  REM  *** SET COLORS ***
70 KA =  INT ( RND (1) * 7) + 1: IF KA = 4 THEN 70
80 KB =  INT ( RND (1) * 7) + 1: IF KB = 4 THEN 80
90 KC =  INT ( RND (1) * 7) + 1: IF KC = 4 THEN 90
100 KD =  INT ( RND (1) * 7) + 1: IF KD = 4 THEN 100
105 CB = CB + 18
109  REM  *** INITIALIZE SHAPE TABLES ***
110 Z =  ABS (Z - 4)
120  GOSUB 700
130 S = 10: ROT= 0: SCALE= 2
139  REM  ***READ GRAPHIC COORDINATES AND COLORS ***
140  READ RO,A,B
```

```
150  IF RO =  - 1 THEN 370
160  FOR CO = A TO B STEP S
170 KO = KA
180  GOSUB 500
190  NEXT CO
200  READ CO,A,B
210  FOR RO = A TO B STEP S
220 KO = KB
230  GOSUB 500
240  NEXT RO
250  IF CO =  - 1 THEN 370
260  READ RO,A,B
270  FOR CO = A TO B STEP  - S
280 KO = KC
290  GOSUB 500
300  NEXT CO
310  READ CO,A,B
320  FOR RO = A TO B STEP  - S
330 KO = KD
340  GOSUB 500
350  NEXT RO
360  GOTO 140
370  FOR T = 1 TO 1500
380  NEXT T
390  RESTORE
400  GOTO 70
499  REM  *** ERASE OVER CHARACTER ***
500 SH = SH + 1: IF SH > 4 THEN SH = 1
510  HCOLOR= 0
520  DRAW SH + ( ABS (Z - 4)) AT CO,RO
529  REM  *** DRAW CHARACTERS ON SCREEN ***
530  HCOLOR= KO
540  DRAW SH + Z AT CO,RO
550  RETURN
699  REM  *** SHAPE TABLE ROUTINE ***
700  FOR ST = 1 + Z TO 4 + Z
710  FOR LOC = 0 TO 9
720  IF LOC = 9 THEN  POKE CB + (ST * 10 + 9),0: GOTO 750
730 D =  INT ( RND (1) * 256): IF D = 0 THEN 730
740  POKE CB + (10 * ST + LOC),D
750  NEXT LOC
760  NEXT ST
770  RETURN
1000  DATA  90,130,140,150,90,100,100,140,130,120,100,90
1010  DATA  80,120,150,160,80,110,110,150,120,110,110,80
1020  DATA  70,110,160,170,70,120,120,160,110,100,120,70
1030  DATA  60,100,170,180,60,130,130,170,100,90,130,60
1040  DATA  50,90,180,190,50,140,140,180,90,80,140,50
1050  DATA  40,80,190,200,40,150,150,190,80,70,150,40
1060  DATA  30,70,200,210,30,160,160,200,70,60,160,30
1070  DATA  20,60,210,220,20,170,170,210,60,50,170,20
1080  DATA  -1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
```

Atari

```
1 REM *** GRAPHIC FANTASY ATARI ***
2 REM *** GTIA CHIP REQUIRED ***
10 GRAPHICS 11
19 REM *** PICK COLORS AND RANDOM COORDINATES ***
20 KO=INT(RND(1)*15)+1
```

```
30 RO=INT(RND(1)*191)
40 CO=INT(RND(1)*79)
49 REM *** DRAW STARBURSTS ***
50 COLOR KO
60 PLOT 40,96
70 DRAWTO CO,RO
80 X=X+1:Q=KO
90 IF X=75 THEN 130
120 GOTO 20
129 REM *** INITIALIZE FRAMING COORDINATES ***
130 A=0
140 B=79
150 C=191
160 D=0
170 KO=INT(RND(1)*8)
179 REM *** DRAW FRAMES ***
180 COLOR KO
190 PLOT D,A
200 DRAWTO B,A
210 DRAWTO B,C
220 DRAWTO D,C
230 DRAWTO D,A
240 A=A+1
250 B=B-1
260 C=C-1
270 D=D+1
280 X=X+1
290 IF X>275 THEN X=1:GOTO 10
300 IF A<0 OR A>79 THEN 130
310 GOTO 170
```

Commodore 64

```
1 REM *** GRAPHIC FANTASY 64 ***
10 Z=1
20 S=1
30 PRINT CHR$(147)
40 POKE 53280,0
50 POKE 53281,0
60 DUM=INT(RND(-TI))
69 REM *** SET COLORS ***
70 KA=INT(RND(1)*4)+1
80 KB=INT(RND(1)*4)+4
90 KC=INT(RND(1)*4)+8
100 KD=INT(RND(1)*4)+12
109 REM *** INITIALIZE SCREEN AND CHARACTER VARIABLES ***
110 CB=55296
120 CH=160
130 SB=1024
139 REM *** READ GRAPHIC COORDINATES AND COLORS ***
140 READ RO,A,B
150 IF RO=-1 THEN 370
160 FOR CO=A TO B STEP S
170 KO=KA
180 GOSUB 500
190 NEXT CO
200 READ CO,A,B
210 FOR RO=A TO B STEP S
220 KO=KB
230 GOSUB 500
```

```
240 NEXT RO
250 IF CO=-1 THEN 370
260 READ RO,A,B
270 FOR CO=A TO B STEP -S
280 KO=KC
290 GOSUB 500
300 NEXT CO
310 READ CO,A,B
320 FOR RO=A TO B STEP -S
330 KO=KD
340 GOSUB 500
350 NEXT RO
360 GOTO 140
370 FOR T=1 TO 1500
380 NEXT T
390 S=INT(RND(1)*5)+1
400 RESTORE
410 Z=Z+1
420 GOTO 40
499 REM *** RANDOMLY PICK CHARACTER ***
500 IF Z/3=INT(Z/3) THEN CH=81
510 IF Z/5=INT(Z/5) THEN CH=86
520 IF Z/7=INT(Z/7) THEN CH=90
529 REM *** DRAW CHARACTERS ON SCREEN ***
530 POKE CB+CO+40*RO,KO
540 POKE SB+CO+40*RO,CH
550 RETURN
1000 DATA 12,19,20,20,12,13,13,20,18,18,13,11
1010 DATA 11,18,21,21,11,14,14,21,17,17,14,10
1020 DATA 10,17,22,22,10,15,15,22,16,16,15,9
1030 DATA 9,16,23,23,9,16,16,23,15,15,16,8
1040 DATA 8,15,24,24,8,17,17,24,14,14,17,7
1050 DATA 7,14,25,25,7,18,18,25,13,13,18,6
1060 DATA 6,13,26,26,6,19,19,26,12,12,19,5
1070 DATA 5,12,27,27,5,20,20,27,11,11,20,4
1080 DATA 4,11,28,28,4,21,21,28,10,10,21,3
1090 DATA 3,10,29,29,3,22,22,29,9,9,22,2
1100 DATA 2,9,30,30,2,23,23,30,8,8,23,1
1110 DATA 1,8,31,31,1,24,24,31,7,7,24,0
1120 DATA 0,7,31,-1,-1,-1,-1,-1,-1
1130 DATA -1,-1,-1,-1,-1,-1,-1
```

IBM PC

```
10 REM *** GRAPHIC FANTASY IBM-PC ***
20 KEY OFF
30 REM *** INITIALIZE VARIABLES ***
40 SCREEN 0,0,0
50 WIDTH 80
60 CLS
70 Z=1:S=4
80 RO=3
90 RANDOMIZE -564
100 CH=219
110 REM *** MAIN LOOP ***
120 READ A,B
130 IF B=-1 THEN 380
140 FOR CO=A TO B STEP S
150 GOSUB 1000
160 NEXT CO
```

```
170 CO=R
180 READ C,D
190 IF D=-1 THEN 380
200 FOR RO=C TO D STEP S
210 GOSUB 1000
220 NEXT RO
230 RO=0
240 READ E,F
250 IF F=-1 THEN 380
260 FOR CO=E TO F STEP -S
270 GOSUB 1000
280 NEXT CO
290 CO=F
300 READ G,H
310 IF H=-1 THEN 380
320 FOR RO=G TO H STEP -S
330 GOSUB 1000
340 NEXT RO
350 RO=H
360 GOTO 100
370 REM *** DELAY-SET STEPS ***
380 FOR I=1 TO 1500
390 NEXT I
400 S=INT(RND(1)*5)+1
410 RESTORE
420 Z=Z+1
430 GOTO 80
440 REM *** RANDOMLY PICK CHARACTERS ***
1000 IF Z/2=INT(Z/2) THEN CH=4
1010 IF Z/3=INT(Z/3) THEN CH=2
1020 IF Z/4=INT(Z/4) THEN CH=220
1030 IF Z/5=INT(Z/5) THEN CH=8
1040 IF Z/7=INT(Z/7) THEN CH=0
1050 IF Z/9=INT(Z/9) THEN CH=239
1060 REM *** DRAW CHARACTERS ***
1070 LOCATE #0,CO,O
1080 PRINT CHR$(CH);
1090 RETURN
2000 DATA 2,78,3,25,78,3,23,4,3,77,4,22
2010 DATA 7,4,22,5,4,76,5,21,76,5,21,6,5,75
2020 DATA 6,20,75,6,20,7,6,74,7,19,74,7,19,8
2030 DATA 7,73,8,18,73,8,18,9,8,72,9,17,72,9
2040 DATA 17,10,9,71,10,16,71,10,16,11,10,70,11,15
2050 DATA 70,11,15,12,11,69,12,14,69,12,14,13,12,68
2060 DATA -1,-1
```

TI-99/4A

```
1 REM   *** GRAPHIC FANTASY TI99/4A ***
10 CALL SCREEN(2)
20 Z=1
30 S=2
39 REM *** DEFINE LE CHARACTERS ***
40 A$="FFFFFFFFFFFFFFFF"
50 CALL CHAR(120,A$)
60 CALL CHAR(136,A$)
70 CALL CLEAR
80 RO=12
90 CH=120
100 RANDOMIZE
```

```
109 REM  *** SELECT LE COLOURS ***
110 CALL COLOR(2,INT(RND*6)+3,INT(RND*6)+3)
120 CALL COLOR(5,INT(RND*8)+4,INT(RND*8)+1)
130 CALL COLOR(6,INT(RND*4)+8,INT(RND*15)+1)
140 CALL COLOR(8,INT(RND*4)+12,INT(RND*5)+1)
150 CALL COLOR(13,INT(RND*14)+3,1)
160 CALL COLOR(14,INT(RND*10)+3,1)
169 REM *** READ GRAPHIC COORDINATES ***
170 READ A,B
180 IF A=-1 THEN 460
190 FOR CO=A TO B STEP S
200 GOSUB 500
210 NEXT CO
220 CO=CO-1
230 READ A,B
240 IF A=-1 THEN 460
250 FOR RO=A TO B STEP S
260 GOSUB 500
270 NEXT RO
280 RO=RO-1
290 READ A,B
300 IF A=-1 THEN 460
310 FOR CO=A TO B STEP -S
320 GOSUB 500
330 NEXT CO
340 CO=CO+1
350 READ A,B
360 IF A=-1 THEN 460
370 FOR RO=A TO B STEP -S
380 GOSUB 500
390 NEXT RO
400 RO=RO+1
410 CALL HCHAR(12,15,CH)
420 CALL HCHAR(11,16,CH)
430 LL HCHAR(12,17,CH)
440 GOTO 110
459 REM *** SET DRAWING STEPS ***
460 S=INT(RND*5)+2
470 RESTORE
480 Z=Z+1
490 GOTO 80
499 REM *** CHOOSE LE CHARACTERS ***
500 IF Z/2=INT(Z/2)THEN 510 ELSE 520
510 CH=136
520 IF Z/3=INT(Z/3)THEN 530 ELSE 540
530 CH=42
540 IF Z/5=INT(Z/5)THEN 550 ELSE 560
550 CH=64
560 IF Z/6=INT(Z/6)THEN 570 ELSE 580
570 CH=79
580 IF Z/7=INT(Z/7)THEN 590 ELSE 600
590 CH=94
600 IF Z/8=INT(Z/8)THEN 610 ELSE 620
610 CH=128
619 REM *** DEFINE BOUNDERIES ***
620 IF RO>24 THEN 630 ELSE 640
630 RO=24
640 IF RO<1 THEN 700
650 IF CO<4 THEN 660 ELSE 670
```

```
660 CO=4
670 IF CO>28 THEN 680 ELSE 690
680 CO=28
689 REM *** DRAW CHARACTERS ON SCREEN ***
690 CALL HCHAR(RO,CO,CH)
700 RETURN
710 DATA 16,17,12,13,17,15,13,11,15,18,11,14,18,14,14,10
720 DATA 14,19,10,15,19,13,15,9,13,20,9,16,20,12,16,8
730 DATA 12,21,8,17,21,11,17,7,11,22,7,18,22,10
740 DATA 18,6,10,23,6,19,23,9,19,5,9,24,5,20,24,8
750 DATA 20,4,8,25,4,21,25,7,21,3,7,26,3,22
760 DATA 26,6,22,2,6,27,2,23,27,5,23,1,5,28,1,24
770 DATA 28,4,-1,-1,-1,-1
```

Timex 1000 and 1500

```
  1 REM *** GRAPHIC FANTASY TIMEX ***
 10 CLS
 20 RAND
 29 REM *** INITIALIZE VARIABLES ***
 30 LET S=INT (RND*5)+1
 40 LET A=0
 50 LET B=31
 60 LET C=0
 70 LET D=21
 80 LET CH=INT (RND*9)+2
 99 REM *** MAIN LOOP ***
100 FOR X=A TO B STEP S
110 PRINT AT C,X;CHR$ (CH)
120 NEXT X
130 FOR X=C TO D STEP S
140 PRINT AT X,B;CHR$ (CH)
150 NEXT X
160 FOR X=B TO A STEP -S
170 PRINT AT D,X;CHR$ (CH)
180 NEXT X
190 FOR X=D TO C STEP -S
200 PRINT AT X,A;CHR$ (CH)
210 NEXT X
219 REM *** REDEFINE VARIABLES **
220 LET A=A+1
230 LET B=B-1
240 LET C=C+1
250 LET D=D-1
260 IF C>21 THEN GOTO 20
270 GOTO 100
```

TRS-80 Color Computer

```
1 REM *** GRAPHIC FANTASY TRS-80 COLOR ***
10 S=1
20 Z=1
30 CLS(0)
40 E=231
49 REM *** RAMDOMLY PICK COLOR ***
50 KA=RND(8)
60 KB=RND(2)+2
70 KC=RND(8)
80 KD=RND(2)+6
90 CH=15
99 REM *** MAIN LOOP ***
```

```
100 READ B
110 IF B=-1 THEN 320
120 FOR CO=E TO B STEP S
130 KO=KA
140 GOSUB 500
150 NEXT CO
160 READ C
170 FOR CO=B TO C STEP S*32
180 KO=KB
190 GOSUB 500
200 NEXT CO
210 READ D
220 FOR CO=C TO D STEP-S
230 KO=KC
240 GOSUB 500
250 NEXT CO
260 READ E
270 FOR CO=D TO E STEP-S*32
280 KO=KD
290 GOSUB 500
300 NEXT CO
310 GOTO 100
320 FOR T=1 TO 1500
330 NEXT T
340 S=RND(5)
350 RESTORE
360 Z=Z+1
370 GOTO 40
499 REM *** RANDOMLY PICK CHARACTER ***
500 IF Z/3=INT(Z/3) THEN CH=7
510 IF Z/2=INT(Z/2) THEN CH=10
520 IF Z/5=INT(Z/5) THEN CH=9
530 IF Z/7=INT(Z/7) THEN CH=4
539 REM *** DRAW CHARACTERS ***
540 SC=128+16*(KO-1)+CH
550 PRINT@CO,CHR$(SC);
560 RETURN
1000 DATA 248,280,262,198,217,313,293,165,186
1010 DATA 346,324,132,155,379,355,99,124,412
1020 DATA 386,66,93,445,417,33,62,478
1030 DATA 448,32,-1,-1,-1
```

TRS-80 Model III and Model 4

```
1 REM *** GRAPHIC MODELS 3 AND 4 CASS. OR MODEL 3 DISK BASIC ***
9 REM *** INITIALIZE VARIABLES ***
10 S=2
20 Z=1:PRINT CHR$(21)
30 CLS
40 E=0
50 CH=158
59 REM *** MAIN LOOP ***
60 READ B
70 FOR CO=E TO B STEP S
80 GOSUB 500
90 NEXT CO
100 READ C
110 IF C=-1 THEN 240
120 FOR CO=B TO C STEP S*64
130 GOSUB 500
```

```
140 NEXT CO
150 READ D
160 FOR CO=C TO D STEP-S
170 GOSUB 500
180 NEXT CO
190 READ E
200 FOR CO=D TO E STEP-S*64
210 GOSUB 500
220 NEXT CO
230 GOTO 60
240 FOR T=1 TO 1500
250 NEXT T
260 S=RND(7)
270 RESTORE
280 Z=Z+1
290 GOTO 40
499 REM *** RANDOMLY CHOOSE CHARACTER ***
500 IF Z/2=INT(Z/2) THEN CH=183
510 IF Z/3=INT(Z/3) THEN CH=189
520 IF Z/4=INT(Z/4) THEN CH=129
530 IF Z/5=INT(Z/5) THEN CH=157
540 IF Z/6=INT(Z/6) THEN CH=170
549 REM *** DRAW ***
550 PRINT@CO,CHR$(CH);
560 RETURN
1000 DATA 63,959,896,64,126,894,833,129,189
1010 DATA 829,770,194,252,764,707,259,315,699
1020 DATA 644,324,378,634,581,389,441,569
1070 DATA 518,454,504,-1,-1,-1
```

VIC-20

```
1 REM *** GRAPHIC FANTASY VIC-20 ***
10 Z=1
20 S=2
30 PRINT CHR$(147)
40 POKE 36879,8
60 DUM=INT(RND(-TI))
69 REM *** SET COLORS ***
70 KA=INT(RND(1)*2)+1
80 KB=INT(RND(1)*2)+2
90 KC=INT(RND(1)*2)+4
100 KD=INT(RND(1)*2)+6
109 REM *** INITIALIZE SCREEN AND CHARACTER VARIABLES ***
110 CB=38400
120 CH=160
130 SB=7680
140 READ RO,A,B
150 IF RO=-1 THEN 370
160 FOR CO=A TO B STEP S
170 KO=KA
180 GOSUB 500
190 NEXT CO
200 READ CO,A,B
210 FOR RO=A TO B STEP S
220 KO=KB
230 GOSUB 500
240 NEXT RO
250 IF CO=-1 THEN 370
260 READ RO,A,B
```

```
270 FOR CO=A TO B STEP -S
280 KO=KC
290 GOSUB 500
300 NEXT CO
310 READ CO,A,B
320 FOR RO=A TO B STEP -S
330 KO=KD
340 GOSUB 500
350 NEXT RO
360 GOTO 140
370 FOR T=1 TO 1500
380 NEXT T
390 S=INT(RND(1)*5)+1
400 RESTORE
410 Z=Z+1
420 GOTO 40
499 REM *** RANDOMLY PICK CHARACTER ***
500 IF Z/3=INT(Z/3) THEN CH=81
510 IF Z/5=INT(Z/5) THEN CH=86
520 IF Z/7=INT(Z/7) THEN CH=90
529 REM *** DRAW CHARACTERS ***
530 POKE CB+CO+22*RO,KO
540 POKE SB+CO+22*RO,CH
550 RETURN
1000 DATA 11,11,12,12,11,12,12,12,10,10,12,10,10,10,13
1010 DATA 13,10,13,13,13,9,9,13,9,9,9,14,14,9,14
1020 DATA 14,14,8,8,14,8,8,8,15,15,8,15,15,15,7
1030 DATA 7,15,7,7,7,16,16,7,16,16,16,6,6,16,6
1040 DATA 6,6,17,17,6,17,17,17,5,5,17,5,5,5,18
1050 DATA 18,5,18,18,18,4,4,18,4,4,4,19,19,4,19
1060 DATA 19,19,3,3,19,3,3,3,20,20,3,20,20,20,2
1070 DATA 2,20,2,2,2,21,21,2,21,21,21,1,1,21,1
1080 DATA 1,1,21,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
1090 DATA 3,10,29,29,3,22,22,29,9,9,22,2
1100 DATA 2,9,30,30,2,23,23,30,8,8,23,1
1110 DATA 1,8,31,31,1,24,24,31,7,7,24,0
1120 DATA 0,7,31,-1,-1,-1,-1,-1,-1
1130 DATA -1,-1,-1,-1,-1,-1,-1

READY.
```

BONUS PROGRAM #6

WATER BALLOONS

In the summers of my early youth, we used to have water balloon fights to keep cool. To be cool now, I use my computer to play a little game called WATER BALLOONS. The object of WATER BALLOONS is to stand on the balcony of a tall building, blindfolded (if that sounds a bit scary, read on), and drop water balloons into a hoop on the ground. Your friend, who's surely nuts, is down below, shouting directions to you. "TOO FAR NORTH!" he says, as you hit the policeman on the head.

To set the directions a water balloon will travel, you select a number between one and 10 for North and South, and do the same for West and East. If you pick a 10 for North/South and your friend says, "TOO FAR SOUTH!", then you should pick a lower number for North/South on the next time around.

After selecting the number you want, be sure to press the RETURN or ENTER key, to plug the number into the computer. When you finally drop a balloon into the hoop, the computer will tell you how many tries it took.

ADAM

```
  1 REM  *** WATER BALLOONS  ADAM ***
 10 b = 10
 20 HOME
 30 PRINT TAB(8); "WATER BALLOONS!"
 40 PRINT
 50 PRINT TAB(4); "Press any key to begin."
 60 GET n$
 70 HOME
 80 PRINT "You are on the 7th floor"
 85 PRINT "balcony of a building,"
 90 PRINT "blindfolded. You are trying"
100 PRINT "to drop water balloons into"
105 PRINT "the center of a hoop on the"
110 PRINT "ground below. To do so,"
115 PRINT "you must set your north/south"
120 PRINT "and west/east coordinates"
125 PRINT "according to your friend's"
130 PRINT "help on the ground."
149 REM  *** pick coordinates ***
150 la = INT(RND(1)*10)+1
160 lo = INT(RND(1)*10)+1
170 PRINT
180 PRINT
190 PRINT "1=extreme south, 10=extreme north."
200 PRINT "1=extreme west, 10=extreme east."
210 PRINT
220 PRINT "You now have "; b; " water balloons."
230 PRINT "What's your guess"
235 PRINT "(between 1 and 10)"
240 PRINT "for the north/south coordinates"
```

```
245 INPUT ns
250 IF ns < 1 OR ns > 10 THEN 230
260 PRINT "What's your guess for west/east"
265 INPUT ew
270 IF ew < 1 OR ew > 10 THEN  PRINT "It must be between 1 and 10!":
GOTO 260
280 IF ns = la AND ew = lo THEN 500
290 PRINT
299 REM  *** scroll screen ***
300 FOR x = 1 TO 24
310 PRINT
320 NEXT x
330 PRINT "Your friend below says:"
340 PRINT
349 REM  *** compare coordinates ***
350 IF ns > la THEN  PRINT "Too far north!"
360 IF ns < la THEN  PRINT "Too far south!"
370 IF ns = la THEN  PRINT "North, south O.K.!"
380 IF ew > lo THEN  PRINT "Too far east!"
390 IF ew < lo THEN  PRINT "Too far west!"
400 IF ew = lo THEN  PRINT "East, west O.K.!"
410 b = b-1
420 IF b < 1 THEN 800
429 REM  *** randomly pick two other ways to lose ***
430 x = INT(RND(1)*30)+1
440 IF x = 7 THEN 600
450 IF x = 13 THEN 700
460 PRINT
470 GOTO 190
499 REM  *** WIN! ***
500 HOME
510 PRINT "You hit in "; 10-b; " tries!"
520 PRINT
530 PRINT "Press any key to play again."
540 GET n$
550 GOTO 150
599 REM  *** hit Mom or Policeman ***
600 PRINT
610 PRINT "You plastered your Mom as she"
620 PRINT "walked out to see what was"
630 PRINT "going on."
640 PRINT "YOU LOSE!"
650 END
700 HOME
710 PRINT "You hit the Policeman on the"
720 PRINT "head. He confiscates your hoop"
730 PRINT "and you lose the game!"
740 END
799 REM  *** LOSE ***
800 PRINT
810 PRINT "You're out of water balloons!"
820 PRINT "YOU LOSE. The coordinates were:"
830 PRINT "north/south="; la
840 PRINT "east/west="; lo
850 END
```

Apple II and Apple IIe

```
1  REM  *** WATER BALLOONS  APPLE ***
10 B = 10
20  HOME
30  PRINT  TAB( 12)"WATER BALLOONS!"
40  PRINT
50  PRINT  TAB( 8)"PRESS ANY KEY TO BEGIN."
60  GET N$
70  HOME
80  PRINT "YOU ARE ON THE 7TH FLOOR BALCONY OF A"
90  PRINT "BUILDING, BLINDFOLDED.  YOU ARE TRYING"
100  PRINT "TO DROP WATER BALLOONS INTO THE CENTER"
110  PRINT "OF A HOOP ON THE GROUND BELOW."
120  PRINT "TO DO SO, YOU MUST SET YOUR NORTH/SOUTH"
130  PRINT "AND WEST/EAST COORDINATES ACCORDING"
140  PRINT "TO YOUR FRIEND'S HELP ON THE GROUND"
149  REM  *** PICK COORDINATES ***
150 LA =  INT ( RND (1) * 10) + 1
160 LO =  INT ( RND (1) * 10) + 1
170  PRINT
180  PRINT
190  PRINT "1=EXTREME SOUTH, 10=EXTREME NORTH."
200  PRINT "1=EXTREME WEST,  10=EXTREME EAST"
210  PRINT
220  PRINT "YOU NOW HAVE "B" WATER BALLOONS."
230  PRINT "WHAT'S YOUR GUESS (BETWEEN 1 AND 10)"
240  INPUT "FOR THE NORTH/SOUTH COORDINATES: ";NS
250  IF NS < 1 OR NS > 10 THEN 230
260  INPUT "WHAT'S YOUR GUESS FOR WEST/EAST: ";EW
270  IF EW < 1 OR EW > 10 THEN  PRINT "IT MUST BE BETWEEN 1 AN 10!":
GOTO 260
280  IF NS = LA AND EW = LO THEN 500
290  PRINT
299  REM  *** SCROLL SCREEN ***
300  FOR X = 1 TO 24
310  PRINT
320  NEXT X
330  PRINT "YOUR FRIEND BELOW SAYS:"
340  PRINT
349  REM  *** COMPARE COORDINATES ***
350  IF LA < NS THEN  PRINT "TOO FAR NORTH!"
360  IF LA > NS THEN  PRINT "TOO FAR SOUTH!"
370  IF LA = NS THEN  PRINT "NORTH, SOUTH O.K.!"
380  IF EW > LO THEN  PRINT "TOO FAR EAST!"
390  IF EW < LO THEN  PRINT "TOO FAR WEST!"
400  IF EW = LO THEN  PRINT "EAST, WEST O.K.!"
410 B = B - 1
420  IF B < 1 THEN 800
429  REM  *** RANDOMLY PICK TWO OTHER WAYS TO LOSE ***
430 X =  INT ( RND (1) * 30) + 1
440  IF X = 7 THEN 600
450  IF X = 13 THEN 700
460  PRINT
470  GOTO 190
499  REM  *** WIN! ***
500  HOME
510  PRINT "YOU HIT IN "10 - B" TRIES!"
```

```
520  PRINT
530  PRINT "PRESS ANY KEY TO PLAY AGAIN."
540  GET N$
550  RUN
599  REM  *** HIT MOM OR POLICEMAN ***
600  PRINT
610  PRINT "YOU PLASTERED YOUR MOM AS SHE WALKED"
620  PRINT "OUT TO SEE WHAT WAS GOING ON!"
630  PRINT "YOU LOSE!"
640  END
700  HOME
710  PRINT "YOU HIT THE POLICEMAN ON THE HEAD."
720  PRINT "HE CONFISCATES YOUR HOOP AND YOU"
730  PRINT "LOSE THE GAME!"
740  END
799  REM  *** LOSE ***
800  PRINT
810  PRINT "YOU'RE OUT OF WATER BALLOONS!"
820  PRINT "YOU LOSE.  THE COORDINATES WERE:"
830  PRINT "NORTH/SOUTH="LA
840  PRINT "EAST/WEST="LO
850  END
```

Atari

```
1 REM *** WATER BALLOONS ATARI ***
10 DIM R$(1):B=10
20 PRINT CHR$(125)
30 POSITION 12,0
40 PRINT "WATER BALLOONS!"
50 POSITION 8,3:PRINT "PRESS (RETRUN) TO START";
60 GOSUB 1000
70 PRINT CHR$(125)
80 PRINT "YOU ARE ON THE 7TH FLOOR BALCONY OF A"
90 PRINT "BUILDING, BLINDFOLDED. YOU ARE TRYING"
100 PRINT "TO DROP WATER BALLOONS INTO A HOOP,"
110 PRINT "ON THE GROUND BELOW.  TO DO SO,"
120 PRINT "YOU MUST SET YOUR NORTH/SOUTH"
130 PRINT "AND EAST/WEST COORDINATES ACCORDING"
140 PRINT "TO YOUR FRIEND'S HELP ON THE GROUND."
149 REM *** PICK COORDINATES ***
150 LA=INT(RND(1)*10)+1
160 LO=INT(RND(1)*10)+1
170 PRINT
180 PRINT
190 PRINT "1=EXTREME SOUTH - 10=EXTREME NORTH"
200 PRINT "1=EXTREME WEST - 10=EXTREME EAST"
210 PRINT
220 PRINT "YOU HAVE ";B;" WATER BALLOONS."
230 PRINT "WHAT'S YOUR GUESS (BETWEEN 1 AND 10)"
240 PRINT "FOR THE NORTH/SOUTH COORDINATES":INPUT NS
250 IF NS<1 OR NS>10 THEN 230
260 PRINT "WHAT'S YOUR GUESS FOR WEST/EAST":INPUT EW
270 IF EW<1 OR EW>10 THEN PRINT "IT MUST BE WITHIN 1 AND 10!":GOTO 260
280 IF NS=LA AND EW=LO THEN 500
290 PRINT
299 REM *** SCROLL SCREEN ***
300 FOR X=1 TO 24
310 PRINT
320 NEXT X
```

```
330 PRINT "YOUR FRIEND BELOW SAYS:"
340 PRINT
349 REM *** COMPARE COORDINATES ***
350 IF NS>LA THEN PRINT "TOO FAR NORTH!"
360 IF NS<LA THEN PRINT "TOO FAR SOUTH!"
370 IF NS=LA THEN PRINT "NORTH/SOUTH O.K.!"
380 IF EW>LO THEN PRINT "TOO FAR EAST!"
390 IF EW<LO THEN PRINT "TOO FAR WEST!"
400 IF EW=LO THEN PRINT "EAST/WEST O.K.!"
410 B=B-1
420 IF B<1 THEN 800
429 REM *** RANDOMLY PICK TWO OTHER WAYS TO LOSE ***
430 X=INT(RND(1)*30)+1
440 IF X=7 THEN 600
450 IF X=13 THEN 700
460 PRINT
470 GOTO 190
499 REM *** WIN! ***
500 PRINT CHR$(125)
510 PRINT "YOU HIT IT IN ";9-B;" TURN(S)!"
520 PRINT
530 PRINT "PRESS (RETURN) TO PLAY AGAIN."
540 GOSUB 1000
550 RUN
599 REM *** HIT MOM OR POLICEMAN ***
600 PRINT
610 PRINT "YOU PLASTERED YOUR MOM AS SHE WALKED"
620 PRINT "OUT TO SEE WHAT WAS GOING ON!"
630 PRINT "YOU LOSE!"
640 END
700 PRINT CHR$(125)
710 PRINT "YOU HIT THE POLICEMAN ON THE HEAD."
720 PRINT "HE CONFISCATES YOUR HOOP"
730 PRINT "AND YOU LOSE THE GAME!"
740 END
799 REM *** LOSE ***
800 PRINT
810 PRINT "YOU RE OUT OF WATER BALLOONS!"
820 PRINT "YOU LOSE.  THE COORDINATES WERE:"
830 PRINT "NORTH/SOUTH= ";LA
840 PRINT "EAST/WEST= ";LO
850 END
1000 INPUT R$
1020 RETURN
```

Commodore 64

```
1 REM *** WATER BALLOONS 64 ***
10 B=10
20 PRINT CHR$(147)
30 PRINT TAB(12)"WATER BALLOONS!"
40 PRINT
50 PRINT TAB(8)"PRESS (SHIFT) TO BEGIN."
60 GOSUB 1000
69 REM *** INTRODUCTION ***
70 PRINT CHR$(147)
80 PRINT "YOU ARE ON THE 7TH FLOOR BALCONY OF A"
90 PRINT "BUILDING, BLINDFOLDED.  YOU ARE TRYING"
100 PRINT "TO DROP WATER BALLOONS INTO A HOOP"
110 PRINT "ON THE GROUND BELOW."
```

```
120 PRINT "TO DO SO, YOU MUST SET NORTH/SOUTH"
130 PRINT "AND WEST/EAST COORDINATES ACCORDING"
140 PRINT "TO YOUR FRIEND'S HELP ON THE GROUND."
149 REM *** PICK COORDINATES ***
150 LA=INT(RND(1)*10)+1
160 LO=INT(RND(1)*10)+1
170 PRINT
180 PRINT
190 PRINT "1=EXTREME SOUTH - 10=EXTREME NORTH"
200 PRINT "1=EXTREME WEST - 10=EXTREME EAST"
210 PRINT
219 REM *** MAIN LOOP ***
220 PRINT "YOU NOW HAVE"B"WATER BALLOONS."
230 PRINT "WHAT'S YOUR GUESS (BETWEEN 1 AND 10)"
240 INPUT "FOR THE NORTH/SOUTH COORDINATE";NS
250 IF NS<1 OR NS> 10 THEN 230
260 INPUT "WHAT'S YOUR GUESS FOR WEST/EAST";EW
270 IF EW<1 OR EW>10 THEN PRINT "IT MUST BE WITHIN 1 AND 10!":GOTO 260
280 IF NS=LA AND EW=LO THEN 500
290 PRINT
299 REM *** SCROLL SCREEN ***
300 FOR X=1 TO 24
310 PRINT
320 NEXT X
330 PRINT "YOUR FRIEND BELOW SAYS:"
340 PRINT
349 REM *** COMPARE COORDINATES ***
350 IF NS>LA THEN PRINT "TOO FAR NORTH!"
360 IF NS<LA THEN PRINT "TOO FAR SOUTH!"
370 IF NS=LA THEN PRINT "NORTH, SOUTH O.K.!"
380 IF EW>LO THEN PRINT "TOO FAR EAST!"
390 IF EW<LO THEN PRINT "TOO FAR WEST!"
400 IF EW=LO THEN PRINT "EAST, WEST O.K.!"
410 B=B-1
420 IF B<1 THEN 800
429 REM *** RANDOMLY PICK TWO OTHER WAYS TO LOSE ***
430 X=INT(RND(1)*30)+1
440 IF X=7 THEN 600
450 IF X=13 THEN 700
460 PRINT
470 GOTO 190
499 REM *** WIN! ***
500 PRINT CHR$(147)
510 PRINT "YOU HIT IT IN"10-B"TRIES!"
520 PRINT
530 PRINT "PRESS (SHIFT) TO PLAY AGAIN."
540 GOSUB 1000
550 RUN
599 REM *** HIT MOM OR POLICEMAN ***
600 PRINT
610 PRINT "YOU PLASTERED YOUR MOM AS SHE WALKED"
620 PRINT "OUT TO SEE WHAT WAS GOING ON!"
630 PRINT "YOU LOSE!"
640 END
700 PRINT CHR$(147)
710 PRINT "YOU HIT THE POLICEMAN ON THE HEAD."
720 PRINT "HE CONFISCATES YOUR HOOP"
730 PRINT "AND YOU LOSE THE GAME!"
740 END
```

```
799 REM *** LOSE ***
800 PRINT
810 PRINT "YOU'RE OUT OF WATER BALLOONS!"
820 PRINT "YOU LOSE.  THE COORDINATES WERE:"
830 PRINT "NORTH/SOUTH="LA
840 PRINT "EAST/WEST="LO
850 END
1000 WAIT 653,1
1010 WAIT 653,1,1
1020 RETURN
```

IBM PC

```
1 REM *** WATER BALLOONS IBM-PC ***
10 B=10
20 CLS
30 PRINT "WATER BALLOONS!"
40 PRINT
50 PRINT "PRESS (ENTER) TO BEGIN."
60 GOSUB 1100
70 CLS
80 PRINT "YOU ARE ON THE 7TH"
90 PRINT "FLOOR BALCONY OF A"
100 PRINT "BUILDING, BLINDFOLDED."
110 PRINT "YOU ARE TRYING TO"
120 PRINT "DROP WATER BALLOONS"
130 PRINT "INTO THE CENTER OF"
140 PRINT "A HOOP ON THE GROUND BELOW."
150 PRINT "TO DO SO, YOU MUST SET"
160 PRINT "YOUR NORTH/SOUTH AND"
170 PRINT "WEST/EAST COORDINATES"
180 PRINT "WITH YOUR FRIEND'S"
190 PRINT "HELP ON THE GROUND."
199 REM *** RANDOMLY PICK COORDINATES ***
200 LA=INT(RND(1)*10)+1
210 LO=INT(RND(1)*10)+1
220 PRINT
230 PRINT "PRESS (ENTER) TO PLAY"
240 GOSUB 1100
250 CLS
260 PRINT
270 PRINT "1=EXTREME SOUTH-"
280 PRINT "10=EXTREME NORTH-"
290 PRINT "1=EXTREME WEST-"
300 PRINT "10=EXTREME EAST"
310 PRINT
320 PRINT "YOU NOW HAVE"B"WATER BALLOONS."
330 PRINT "WHAT IS YOUR GUESS"
340 PRINT "(BETWEEN 1 AND 10)"
350 PRINT "FOR THE NORTH/SOUTH"
360 INPUT "COORDINATE";NS
370 IF NS<1 OR NS>10 THEN 340
380 PRINT "WHAT IS YOUR GUESS"
390 INPUT "FOR WEST AND EAST";EW
400 IF EW<1 OR EW>10 THEN 380
410 IF NS=LA AND EW=LO THEN 700
420 PRINT
430 FOR X=1 TO 24
440 PRINT
450 NEXT X
```

```
460 PRINT "YOUR FRIEND BELOW SAYS"
470 PRINT
479 REM *** COMPARE COORDINATES ***
480 IF NS>LA THEN PRINT "TOO FAR NORTH!"
490 IF NS<LA THEN PRINT "TOO FAR SOUTH!"
500 IF NS=LA THEN PRINT "NORTH/SOUTH O.K.!"
510 IF EW>LO THEN PRINT "TOO FAR EAST!"
520 IF EW<LO THEN PRINT "TOO FAR WEST!"
530 IF EW=LO THEN PRINT "EAST/WEST O.K.!"
540 B=B-1
550 IF B<1 THEN 1000
559 REM *** RANDOMLY TWO OTHER WAYS TO LOSE ***
560 X=INT(RND(1)*30)
570 IF X=7 THEN 800
580 IF X=13 THEN 900
590 PRINT
600 GOTO 270
699 REM *** WIN ***
700 CLS
710 PRINT "YOU HIT IT IN"10-B"TRIES"
720 PRINT
730 PRINT "PRESS (ENTER) TO PLAY AGAIN."
740 GOSUB 1100
750 RUN
799 REM *** HIT MOM OR COP ***
800 PRINT
810 PRINT "YOU HIT YOUR MOM ON THE SIDEWALK!"
820 PRINT "YOU LOSE LIKE YOU WOULDN'T BELIEVE."
830 END
900 CLS
910 PRINT "YOU HIT A POLICEMAN ON THE HEAD."
920 PRINT "HE CONFISCATES YOUR HOOP."
930 PRINT "YOU LOSE!"
940 END
999 REM *** LOSE ***
1000 PRINT
1010 PRINT "YOU'RE OUT OF WATER"
1020 PRINT "BALLOONS.  YOU LOSE!"
1030 PRINT "THE COORDINATES WERE:"
1040 PRINT "NORTH/SOUTH="LA
1050 PRINT "EAST/WEST="LO
1060 END
1099 REM *** WAIT ROUTINE ***
1100 INPUT R$
1120 RETURN
```

TI-99/4A

```
1 REM  *** WATER BALLOONS 1199/4A ***
10 B=10
20 CALL CLEAR
30 PRINT "WATER BALLOONS!"
40 PRINT
50 PRINT "PRESS (ENTER) TO  BEGIN"
60 INPUT R$
70 CALL CLEAR
80 PRINT "YOU ARE ON THE 7TH"
90 PRINT "FLOOR BALCONY OF A"
100 PRINT "BUILDING, BLINDFOLDED."
110 PRINT "YOU ARE TRYING TO"
```

```
120 PRINT "DROP WATER BALLOONS,"
130 PRINT "INTO THE CENTER OF"
140 PRINT "A HOOP ON THE GROUND."
150 PRINT "TO DO SO YOU MUST SET"
160 PRINT "YOUR NORTH/SOUTH AND"
170 PRINT "WEST/EAST COORDINATES"
180 PRINT "WITH YOUR FRIEND'S"
190 PRINT "HELP ON THE GROUND."
199 REM  *** RANDOMLY PICK COORDINATES ***
200 RANDOMIZE
210 LA=INT(10*RND)+1
220 LO=INT(10*RND)+1
230 PRINT "PRESS (ENTER) TO PLAY"
240 INPUT R$
250 CALL CLEAR
260 PRINT
270 PRINT "1=EXTREME SOUTH-"
280 PRINT "10=EXTREME NORTH"
290 PRINT "1=EXTREME WEST-"
300 PRINT "10=EXTREME EAST"
310 PRINT
319 REM   *** INPUT GUESS ***
320 PRINT "YOU NOW HAVE";B
330 PRINT "WATER BALLOONS"
340 PRINT "WHAT S YOUR GUESS"
350 PRINT "(BETWEEN 1 AND 10)"
360 PRINT "FOR THE NORTH/SOUTH"
370 PRINT "COORDINATE";
380 INPUT NS
387 REM  *** COMPARE COORDINATES ***
390 IF NS<1 THEN 350
400 IF NS>10 THEN 350
410 PRINT "WHAT S YOUR GUESS"
420 PRINT "FOR EAST/WEST";
430 INPUT EW
440 IF EW<1 THEN 410
450 IF EW>10 THEN 410
460 IF NS=LA THEN 470 ELSE 480
470 IF EW=LO THEN 730 ELSE 480
479 REM  *** SCROLL SCREEN ***
480 PRINT
490 FOR X=1 TO 24
500 PRINT
510 NEXT X
520 PRINT "YOUR FRIEND SAYS"
530 PRINT
540 IF NS>LA THEN 550 ELSE 560
550 PRINT "TOO FAR NORTH!"
560 IF NS<LA THEN 570 ELSE 580
570 PRINT "TOO FAR SOUTH!"
580 IF NS=LA THEN 590 ELSE 600
590 PRINT "NORTH, SOUTH O.K.!"
600 IF EW>LO THEN 610 ELSE 620
610 PRINT "TOO FAR EAST!"
620 IF EW<LO THEN 630 ELSE 640
630 PRINT "TOO FAR WEST!"
640 IF EW=LO THEN 650 ELSE 660
650 PRINT "EAST/WEST O.K.!"
660 B=B-1
```

```
670 IF B<1 THEN 890
679 REM  *** PICK TWO OTHER WAYS TO LOSE ***
680 X=INT(30*RND)+1
690 IF X=7 THEN 790
700 IF X=13 THEN 840
710 PRINT
720 GOTO 270
730 CALL CLEAR
740 PRINT "GOT IT IN";9-B;"TURN(S)!"
750 PRINT
760 PRINT "PRESS (ENTER) TO PLAY."
770 INPUT R$
780 GOTO 10
789 REM  *** HIT MOM OR COP ***
790 CALL CLEAR
800 PRINT "YOU HIT YOUR MOM ON"
810 PRINT "THE SIDEWALK!"
820 PRINT "YOU LOSE!"
830 END
840 CALL CLEAR
850 PRINT "YOU HIT THE POLICEMAN!"
860 PRINT "HE CONFISCATES YOUR"
870 PRINT "HOOP. YOU LOSE!"
880 END
890 PRINT
899 REM  *** OUT OF BALLOONS-LOSE ***
900 PRINT "YOU'RE OUT OF WATER"
910 PRINT "BALLOONS.  YOU LOSE!"
920 PRINT "THE COORDINATES WERE:"
930 PRINT "NORTH/SOUTH=";LA
940 PRINT "EAST/WEST=";LO
950 END
```

Timex 1000 w/16K RAM Pack and Timex 1500

```
  1 REM *** WATER BALLOONS TIMEX ***
 10 LET B=10
 20 CLS
 30 PRINT TAB (9);"WATER BALLOONS"
 40 PRINT
 50 PRINT TAB (5);"PRESS (ENTER) TO BEGIN."
 60 INPUT R$
 70 CLS
 80 PRINT "YOU ARE ON THE 7TH FLOOR"
 90 PRINT "BALCONY OF A BUILDING,"
100 PRINT "BLINDFOLDED.  YOU ARE TRYING"
110 PRINT "TO DROP WATER BALLOONS INTO"
120 PRINT "A HOOP ON THE GROUND BELOW."
130 PRINT "TO DO SO YOU MUST SET YOUR"
140 PRINT "NORTH/SOUTH AND WEST/EAST"
150 PRINT "COORDINATES ACCORDING TO YOUR"
160 PRINT "FRIENDS HELP ON THE GROUND."
169 REM *** PICK COORDINATES ***
170 LET A=INT (RND*10)+1
180 LET O=INT (RND*10)+1
190 PRINT
200 PRINT "PRESS (ENTER) TO CONTINUE."
210 INPUT R$
220 CLS
230 PRINT "1=EXTREME SOUTH/10=EXTREME NORTH"
```

```
240 PRINT "1=EXTREME WEST/10=EXTREME EAST"
250 PRINT
260 PRINT "YOU NOW HAVE ";B;" WATER BALLOONS."
270 PRINT "WHAT IS YOUR GUESS, BTWN 1-10"
280 PRINT "FOR THE NORTH/SOUTH COORDINATE?"
290 INPUT N
300 IF N<1 OR N>10 THEN GOTO 260
310 PRINT "WHAT IS YOUR GUESS FOR WEST/EAST?"
320 INPUT W
330 IF W<1 OR W>10 THEN GOTO 310
340 IF N=A AND W=O THEN GOTO 530
349 REM *** SCROLL SCREEN ***
350 FOR X=1 TO 8
360 SCROLL
370 PRINT
380 NEXT X
390 CLS
399 REM *** COMPARE COORDINATES ***
400 IF N>A THEN PRINT "TOO FAR NORTH"
410 IF N<A THEN PRINT "TOO FAR SOUTH"
420 IF N=A THEN PRINT "NORTH, SOUTH O.K."
430 IF W>O THEN PRINT "TOO FAR EAST"
440 IF W<O THEN PRINT "TOO FAR WEST"
450 IF W=O THEN PRINT "EAST, WEST O.K."
460 LET B=B-1
470 IF B<1 THEN GOTO 800
479 REM *** RANDOM PICK OF TWO OTHER WAYS TO LOSE ***
480 LET X=INT (RND*30)+1
490 IF X=7 THEN GOTO 600
500 IF X=13 THEN GOTO 700
510 PRINT
520 GOTO 230
529 REM *** WIN ***
530 CLS
540 PRINT "YOU HIT IT IN ";10-B;" TRIES"
550 PRINT
560 PRINT "PRESS (ENTER) TO PLAY AGAIN."
570 INPUT R$
580 RUN
599 REM *** HIT MOM OR POLICEMAN ***
600 PRINT
610 PRINT "YOU PLASTERED YOUR MOM AS SHE"
620 PRINT "WALKED OUT TO SEE WHAT WAS"
630 PRINT "GOING ON.  YOU LOSE."
640 GOTO 850
700 CLS
710 PRINT "YOU HIT THE POLICEMAN ON THE"
720 PRINT "HEAD.  HE CONFISCATES YOUR HOOP"
730 PRINT "AND YOU LOSE THE GAME."
740 GOTO 850
799 REM *** LOSE ***
800 PRINT
810 PRINT "YOU ARE OUT OF WATER BALLOONS."
820 PRINT "YOU LOSE.  THE COORDINATES WERE:"
830 PRINT "NORTH/SOUTH=";A
840 PRINT "EAST/WEST=";O
850 REM *** END ***
```

TRS-80 Color Computer

```
1 REM *** WATER BALLOONS TRS-80 COLOR ***
10 B=10
20 CLS
30 PRINT "WATER BALLOONS!"
40 PRINT
50 PRINT "PRESS (ENTER) TO BEGIN"
60 GOSUB 1100
70 CLS
80 PRINT "YOU ARE ON THE 7TH"
90 PRINT "FLOOR BALCONY OF A"
100 PRINT "BUILDING, BLINDFOLDED"
110 PRINT "YOU ARE TRYING TO"
120 PRINT "DROP WATER BALLOONS,"
130 PRINT "INTO THE CENTER OF"
140 PRINT "A HOOP ON THE GROUND BELOW."
150 PRINT "TO DO SO, YOU MUST SET"
160 PRINT "YOUR NORTH/SOUTH AND"
170 PRINT "WEST/EAST COORINATES"
180 PRINT "WITH YOU FRIEND'S"
190 PRINT "HELP ON THE GROUND."
199 REM *** RANDOMLY PICK COORDINATES ***
200 LA=RND(10)
210 LO=RND(10)
220 PRINT
230 PRINT "PRESS (ENTER) TO PLAY"
240 GOSUB 1100
250 CLS
260 PRINT
270 PRINT "1=EXTREME SOUTH-"
280 PRINT "10=EXTREME NORTH"
290 PRINT "1=EXTREME WEST-"
300 PRINT "10=EXTREME EAST"
310 PRINT
319 REM *** MAIN LOOP ***
320 PRINT "YOU NOW HAVE"B"WATER BALLOONS."
330 PRINT "WHAT IS YOUR GUESS"
340 PRINT "(BETWEEN 1 AND 10)"
350 PRINT "FOR THE NORTH/SOUTH"
360 INPUT "COORDINATE";NS
370 IF NS<1 OR NS>10 THEN 340
380 PRINT "WHAT'S YOUR GUESS"
390 INPUT "FOR EAST/WEST";EW
400 IF EW<1 OR EW>10 THEN 380
410 IF NS=LA AND EW=LO THEN 700
419 REM *** SCROLL SCREEN ***
420 PRINT
430 FOR X=1 TO 24
440 PRINT
450 NEXT X
460 PRINT "YOUR FRIEND BELOW SAYS"
470 PRINT
479 REM *** COMPARE COORDINATES ***
480 IF NS>LA THEN PRINT "TOO FAR NORTH!"
490 IF NS<LA THEN PRINT "TOO FAR SOUTH!"
500 IF NS=LA THEN PRINT "NORTH/SOUTH O.K.!"
510 IF EW>LO THEN PRINT "TOO FAR EAST!
520 IF EW<LO THEN PRINT "TOO FAR WEST!"
```

```
530 IF EW=LO THEN PRINT "EAST/WEST O.K.!"
540 B=B-1
550 IF B<1 THEN 1000
559 REM *** RANDOMLY TWO OTHER WAYS TO LOSE ***
560 X=RND(30)
570 IF X=7 THEN 800
580 IF X=13 THEN 900
590 PRINT
600 GOTO 270
699 REM *** WIN! ***
700 CLS
710 PRINT "YOU HIT IT IN"10-B"TRIES"
720 PRINT
730 PRINT "PRESS (ENTER) TO PLAY AGAIN"
740 GOSUB 1100
750 RUN
799 REM *** HIT MOM OR COP ***
800 PRINT
810 PRINT "YOU HIT YOUR MOM ON"
820 PRINT "THE SIDEWALK!"
830 PRINT "YOU LOSE!"
840 END
900 CLS
910 PRINT "YOU HIT A POLICEMAN ON THE HEAD."
920 PRINT "HE CONFISCATES YOUR HOOP."
930 PRINT "YOU LOSE!"
940 END
999 REM *** LOSE ***
1000 PRINT
1010 PRINT "YOU'RE OUT OF WATER"
1020 PRINT "BALLOONS.  YOU LOSE!"
1030 PRINT " THE COORDINATES WERE:"
1040 PRINT "NORTH/SOUTH="LA
1050 PRINT "EAST/WEST="LO
1060 END
1099 REM *** WAIT ROUTINE ***
1100 INPUT R$
1120 RETURN
```

TRS-80 Model III and Model 4

```
1 REM *** WATER BALLOONS TRS-80 MODELS 3 AND 4 ***
10 B=10
20 CLS
30 PRINT TAB(32) "WATER BALLOONS!"
40 PRINT
50 PRINT TAB(28) "PRESS (ENTER) TO BEGIN";
60 GOSUB 1000
70 CLS
80 PRINT "YOUR ARE ON THE 7TH FLOOR BALCONY OF A"
90 PRINT "BUILDING, BLINDFOLDED.  YOU ARE TRYING"
100 PRINT "TO DROP WATER BALLOONS INTO A HOOP ON"
110 PRINT "THE GROUND BELOW.  TO DO SO, YOU MUST"
120 PRINT "SET YOUR NORTH/SOUTH AND WEST/EAST"
130 PRINT "COORDINATES ACCORDING TO YOUR FRIEND'S"
140 PRINT "HELP ON THE GROUND."
149 REM *** RANDOMLY PICK COORDINATES ***
150 LA=RND(10)
160 LO=RND(10)
170 PRINT
```

```
180 PRINT
190 PRINT "1=EXTREME SOUTH - 10=EXTREME NORTH"
200 PRINT "1=EXTREME WEST - 10=EXTREME EAST"
210 PRINT
220 PRINT "YOU NOW HAVE"B"WATER BALLOONS."
230 PRINT "WHAT'S YOUR GUESS (BETWEEN 1 AND 10)"
240 INPUT "FOR THE NORTH/SOUTH COORDINATE";NS
250 IF NS<1 OR NS>10 THEN 230
260 INPUT "WHAT'S YOUR GUESS FOR WEST/EAST";EW
270 IF EW<1 OR EW>10 THEN 230
280 IF NS=LA AND EW=LO THEN 500
289 REM *** SCREEN SCROLL ***
290 FOR X=1 TO 24
300 PRINT
310 NEXT X
320 CLS
330 PRINT "YOUR FRIEND BELOW SAYS:"
340 PRINT
349 REM *** COMPARE COORDINATES ***
350 IF NS>LA THEN PRINT "TOO FAR NORTH!"
360 IF NS<LA THEN PRINT "TOO FAR SOUTH!"
370 IF NS=LA THEN PRINT "NORTH/SOUTH O.K.!"
380 IF EW>LO THEN PRINT "TOO FAR EAST!"
390 IF EW<LO THEN PRINT "TOO FAR WEST!"
400 IF EW=LO THEN PRINT "EAST/WEST O.K.!"
410 B=B-1
420 IF B<1 THEN 800
429 REM *** RANDOMLY TWO OTHER WAYS TO LOSE ***
430 X=RND(30)
440 IF X=7 THEN 600
450 IF X=13 THEN 700
460 PRINT
470 GOTO 190
499 REM *** WIN! ***
500 CLS
510 PRINT "YOU HIT IT IN"10-B"TRIES!"
520 PRINT
530 PRINT "PRESS (ENTER) TO PLAY AGAIN"
540 GOSUB 1000
550 RUN
599 REM *** HIT MOM OR COP ***
600 PRINT
610 PRINT "YOU PLASTERED YOUR MOM AS SHE WALKED"
620 PRINT "OUT TO SEE WHAT WAS GOING ON!"
630 PRINT "YOU LOSE!"
640 END
700 CLS
710 PRINT" YOU HIT A POLICEMAN ON THE HEAD."
720 PRINT "HE CONFISCATES YOUR HOOP"
730 PRINT "AND YOU LOSE THE GAME!"
740 END
799 REM *** LOSE ***
800 PRINT
810 PRINT "YOU'RE OUT OF WATER BALLOONS!"
820 PRINT "YOU LOSE.  THE COORDINATES WERE:"
830 PRINT "NORTH/SOUTH="LA
840 PRINT "EAST/WEST="LO
850 END
999 REM *** WAIT ROUTINE ***
```

```
1000 INPUT R$
1010 RETURN
```

VIC-20

```
1 REM *** WATER BALLOONS VIC-20 ***
10 B=10
20 PRINT CHR$(147)
30 PRINT "WATER BALLOONS!"
40 PRINT
50 PRINT "PRESS (SHIFT) TO BEGIN"
60 GOSUB 1100
70 PRINT CHR$(147)
80 PRINT "YOU ARE ON THE 7TH"
90 PRINT "FLOOR BALCONY OF A"
100 PRINT "BUILDING,BLINDFOLDED."
110 PRINT "YOU ARE TRYING TO"
120 PRINT "DROP WATER BALLOONS"
130 PRINT "INTO THE CENTER OF"
140 PRINT "A HOOP ON THE GROUND."
150 PRINT "TO DO SO, YOU MUST"
160 PRINT "SET NORTH/SOUTH AND"
170 PRINT "WEST/EAST COORDINATES"
180 PRINT "WITH YOUR FRIEND'S"
190 PRINT "HELP ON THE GROUND."
199 REM *** PICK COORDINATES ***
200 LA=INT(RND(1)*10)+1
210 LO=INT(RND(1)*10)+1
220 PRINT
230 PRINT "PRESS (SHIFT) TO PLAY"
240 GOSUB 1100
250 PRINT CHR$(147)
260 PRINT
270 PRINT "1=EXTREME SOUTH-"
280 PRINT "10=EXTREME NORTH"
290 PRINT "1=EXTREME WEST-"
300 PRINT "10=EXTREME EAST"
310 PRINT
320 PRINT "YOU NOW HAVE"B"WATER BALLOONS"
330 PRINT "WHAT'S YOUR GUESS"
340 PRINT "(BETWEEN 1 AND 10)"
350 PRINT "FOR THE NORTH/SOUTH"
360 INPUT "COORDINATE";NS
370 IF NS<1 OR NS> 10 THEN 340
380 PRINT "WHAT'S YOUR GUESS"
390 INPUT "FOR EAST/WEST";EW
400 IF EW<1 OR EW>10 THEN 380
410 IF NS=LA AND EW=LO THEN 700
420 PRINT
429 REM *** SCROLL SCREEN ***
430 FOR X=1 TO 24
440 PRINT
450 NEXT X
460 PRINT "YOUR FRIEND BELOW SAYS"
470 PRINT
479 REM *** COMPARE COORDINATES ***
480 IF NS>LA THEN PRINT "TOO FAR NORTH!"
490 IF NS<LA THEN PRINT "TOO FAR SOUTH!"
500 IF NS=LA THEN PRINT "NORTH, SOUTH O.K.!"
510 IF EW>LO THEN PRINT "TOO FAR EAST!"
```

```
520 IF EW<LO THEN PRINT "TOO FAR WEST!"
530 IF EW=LO THEN PRINT "EAST, WEST O.K.!"
540 B=B-1
550 IF B<1 THEN 1000
559 REM *** RANDOMLY PICK 2 OTHER WAYS TO LOSE ***
560 X=INT(RND(1)*30)+1
570 IF X=7 THEN 800
580 IF X=13 THEN 900
590 PRINT
600 GOTO 270
699 REM *** WIN! ***
700 PRINT CHR$(147)
710 PRINT "GOT IT IN"10-B"TRIES!"
720 PRINT
730 PRINT "PRESS (SHIFT) TO PLAY.
740 GOSUB 1100
750 RUN
799 REM *** HIT MOM OR POLICEMAN ***
800 PRINT
810 PRINT "YOU HIT YOUR MOM ON"
820 PRINT "THE SIDEWALK!"
830 PRINT "YOU LOSE!"
840 END
900 PRINT CHR$(147)
910 PRINT "YOU HIT THE POLICEMAN!"
920 PRINT "HE CONFISCATES YOUR"
930 PRINT "HOOP. YOU LOSE!"
940 END
999 REM *** LOSE ***
1000 PRINT
1010 PRINT "YOU'RE OUT OF WATER"
1020 PRINT "BALLOONS.  YOU LOSE!"
1030 PRINT "THE COORDINATES WERE:"
1040 PRINT "NORTH/SOUTH="LA
1050 PRINT "EAST/WEST="LO
1060 END
1099 REM *** WAIT ROUTINE ***
1100 WAIT 653,1
1110 WAIT 653,1,1
1120 RETURN
```

BONUS PROGRAM #7

THE MONSTER IN THE MARSH

If you're the type of person who enjoys traipsing through slushy, foggy, rocky places, without really getting wet, then THE MONSTER IN THE MARSH is for you. To win this game you make your way to the end of the marsh. You do this by tossing rocks left, right, or straight ahead, to check if it's safe to move. After each time you toss a rock, you have the choice of moving, or staying where you are. Watch your step! If you move to an unsafe spot, you'll sink. But everytime you stay where you are, the MONSTER OF THE MARSH gains a step on you. Sooner, or later, it's sink or swim in this marsh!

ADAM

```
  1 REM  *** THE MONSTER OF THE MARSH   ADAM ****
 10 s = 15
 20 m = 15
 30 r = 24
 40 HOME
 50 PRINT TAB(3); "THE MONSTER IN THE MARSH"
 60 PRINT
 70 PRINT TAB(4); "Press any key to begin."
 80 GET n$
 90 x = INT(RND(1)*3)+1
 99 REM  *** main loop ***
100 HOME
110 IF r < 1 THEN  fl = 1
120 PRINT "You are "; s; " step(s) from the"
125 PRINT "marsh's end"
130 PRINT "you have "; r; " rock(s) in"
135 PRINT "your pocket"
140 PRINT "the monster is "; m; " step(s)"
145 PRINT "behind you."
150 PRINT
160 PRINT "Your choices are:"
170 PRINT
180 PRINT "1) Take a step"
190 PRINT "2) Stay where you are"
200 IF fl = 0 THEN  PRINT "3) Toss a rock"
210 PRINT
220 PRINT "Type a number, then (RETURN)."
230 INPUT "What is your choice: "; ch
240 IF fl = 1 AND ch > 2 THEN 220
250 IF ch < 1 OR ch > 3 THEN  PRINT "Between 1 and 3, please!": GOTO 220
260 ON ch GOTO 700, 1000, 300
300 HOME
310 PRINT "Type the number of the"
315 PRINT "direction you want to throw"
320 PRINT "the rock"
330 GOSUB 2000
340 fl = 1
350 HOME
```

```
 360 IF x <> w THEN  PRINT "SPLASH!"
 370 IF x = w THEN  PRINT "THUD!"
 380 r = r-1
 390 IF m < 1 THEN 4000
 400 PRINT
 410 PRINT "Press any key to continue."
 420 GET n$
 430 GOTO 100
 699 REM  *** take a step routine ***
 700 HOME
 710 PRINT "Press the number of the"
 720 PRINT "direction you want to step in"
 730 GOSUB 2000
 740 HOME
 750 IF w <> x THEN  PRINT "SPLASH! YOU'RE SINKING!"
 760 z = INT(RND(1)*3)+1
 770 IF w <> x AND z = 1 THEN  m = m-1: PRINT "BUT, you pull yourself
 out!"
 780 IF w <> x AND z <> 1 THEN  PRINT "YOU LOSE!": END
 790 IF w = x THEN  s = s-1: PRINT "You stepped safely!"
 800 IF m < 1 THEN 4000
 810 IF s < 1 THEN 4000
 820 PRINT
 830 PRINT "Press any key to continue."
 840 fl = 0
 850 GET n$
 860 GOTO 90
 999 REM  *** stay where you are ***
1000 m = m-1
1010 IF m < 1 THEN 4000
1020 fl = 0
1030 GOTO 100
1999 REM  *** choose direction ***
2000 PRINT "then press (RETURN)."
2010 PRINT
2020 PRINT "1) left"
2030 PRINT "2) right"
2040 PRINT "3) straight ahead"
2050 PRINT
2060 INPUT "Which way: "; w
2070 IF w < 1 AND w > 3 THEN  PRINT "Between 1 and 3, please!": GOTO 2060
2080 RETURN
3999 REM  *** LOSE ***
4000 HOME
4010 PRINT "The monster eats you and says,"
4020 PRINT "'Could use a bit more salt!'"
4030 PRINT "You lose, for sure.": END
4999 REM  *** WIN ***
5000 HOME
5010 FOR t = 1 TO 200
5020 PRINT "   YOU MADE IT !!!"
5030 NEXT t
```

Apple II and Apple IIe

```
1  REM  *** THE MONSTER OF THE MARSH  APPLE ***
10 S = 15
20 M = 15
30 R = 24
40  HOME
50  PRINT  TAB( 7)"THE MONSTER IN THE MARSH"
60  PRINT
70  PRINT  TAB( 8)"PRESS ANY KEY TO BEGIN."
80  GET N$
90 X =  INT ( RND (1) * 3) + 1
99  REM  *** MAIN LOOP ***
100  HOME
110  IF R < 1 THEN FL = 1
120  PRINT "YOU ARE "S" STEP(S) FROM THE MARSH'S END"
130  PRINT "YOU HAVE "R" ROCK(S) IN YOUR POCKET"
140  PRINT "THE MONSTER IS "M" STEP(S) BEHIND YOU"
150  PRINT
160  PRINT "YOUR CHOICES ARE:"
170  PRINT
180  PRINT "1) TAKE A STEP"
190  PRINT "2) STAY WHERE YOU ARE"
200  IF FL = 0 THEN  PRINT "3) TOSS A ROCK"
210  PRINT
220  PRINT "TYPE A NUMBER, THEN PRESS (RETURN)."
230  INPUT "WHAT IS YOUR CHOICE: ";CH
240  IF FL = 1 AND CH > 2 THEN 220
250  IF CH < 1 OR CH > 3 THEN  PRINT "BETWEEN 1 AND 3, PLEASE!": GOTO
     220
260  ON CH GOTO 700,1000,300
300  HOME
310  PRINT "TYPE THE NUMBER OF THE DIRECTION"
320  PRINT "YOU WANT TO THROW THE ROCK."
330  GOSUB 2000
340 FL = 1
350  HOME
360  IF X <  > W THEN  PRINT "SPLASH!"
370  IF X = W THEN  PRINT "THUD!"
380 R = R - 1
390  IF M < 1 THEN 4000
400  PRINT
410  PRINT "PRESS ANY KEY TO CONTINUE."
420  GET N$
430  GOTO 100
699  REM  *** TAKE A STEP ROUTINE ***
700  HOME
710  PRINT "PRESS THE NUMBER OF THE DIRECTION"
720  PRINT "YOU WANT TO STEP IN."
730  GOSUB 2000
740  HOME
750  IF W <  > X THEN  PRINT "SPLASH!  YOU'RE SINKING!"
760 Z =  INT ( RND (1) * 3) + 1
770  IF W <  > X AND Z = 1 THEN M = M - 1: PRINT "BUT, YOU PULL
     YOURSELF OUT!"
780  IF W <  > X AND Z <  > 1 THEN  PRINT "YOU LOSE!": END
790  IF W = X THEN S = S - 1: PRINT "YOU STEPPED SAFELY!"
800  IF M < 1 THEN 4000
810  IF S < 1 THEN 5000
```

```
820  PRINT
830  PRINT "PRESS ANY KEY TO CONTINUE."
840 FL = 0
850  GET N$
860  GOTO 90
999  REM  *** STAY WHERE YOU ARE ***
1000 M = M - 1
1010  IF M < 1 THEN 4000
1020 FL = 0
1030  GOTO 100
1999  REM  *** CHOOSE DIRECTION ***
2000  PRINT "THEN PRESS (RETURN)."
2010  PRINT
2020  PRINT "1) LEFT"
2030  PRINT "2) RIGHT"
2040  PRINT "3) STRAIGHT AHEAD"
2050  PRINT
2060  INPUT "WHICH WAY: ";W
2070  IF W < 1 OR W > 3 THEN  PRINT "BETWEEN 1 AND 3, PLEASE!": GOTO
      2060
2080  RETURN
3999  REM  *** LOSE ***
4000  HOME
4010  PRINT "THE MONSTER EATS YOU AND SAYS,"
4020  PRINT "'COULD USE A BIT MORE SALT!'"
4030  PRINT "YOU LOSE, FOR SURE.": END
4999  REM  *** WIN ***
5000  HOME
5010  FOR T = 1 TO 200
5020  PRINT "   YOU MADE IT !!!"
5030  NEXT T
```

Atari

```
1 REM *** THE MONSTER IN THE MARSH ATARI ***
10 DIM R$(1)
20 S=15:M=15:R=24
30 PRINT CHR$(125)
40 POSITION 7,0
50 PRINT "THE MONSTER IN THE MARSH!"
60 POSITION 7,3
70 PRINT "PRESS (RETURN) TO BEGIN";
80 GOSUB 3000
90 X=INT(RND(1)*3)+1
99 REM *** MAIN LOOP ***
100 PRINT CHR$(125)
110 IF R<1 THEN FL=1
120 PRINT "YOU'RE ";S;" STEP(S) FROM THE MARSH EDGE"
130 PRINT "YOU HAVE ";R;" ROCK(S) IN YOUR POCKET"
140 PRINT "THE MONSTER IS ";M;" STEP(S) BEHIND YOU"
150 PRINT
160 PRINT "YOUR CHOICES ARE:"
170 PRINT
180 PRINT "1) TAKE A STEP"
190 PRINT "2) STAY WHERE YOU ARE"
200 IF FL=0 THEN PRINT "3) TOSS A ROCK"
210 PRINT
220 PRINT "ENTER YOUR CHOICE, THEN PRESS (RETURN)"
230 INPUT CH
```

```
240 IF FL=1 AND CH>2 THEN GOTO 220
250 IF CH<1 OR CH>3 THEN PRINT "BETWEEN 1 AND 3, PLEASE!":GOTO 220
260 ON CH GOTO 700,1000,300
299 REM *** THROW A ROCK ROUTINE ***
300 PRINT CHR$(125)
310 PRINT "TYPE THE NUMBER OF THE DIRECTION"
320 PRINT "YOU WANT TO TOSS THE ROCK,"
330 GOSUB 2000
340 FL=1
350 PRINT CHR$(125)
360 IF X<>W THEN PRINT "SPLASH!"
370 IF X=W THEN PRINT "THUD!"
380 R=R-1
390 IF M<1 THEN 4000
400 PRINT
410 PRINT "PRESS (RETURN) TO CONTINUE."
420 GOSUB 3000
430 GOTO 100
699 REM *** TAKE A STEP ROUTINE ***
700 PRINT CHR$(125)
710 PRINT "PRESS THE NUMBER OF THE DIRECTION"
720 PRINT "YOU WANT TO STEP IN,"
730 GOSUB 2000
740 PRINT CHR$(125)
750 IF W<>X THEN PRINT "SPLASH!  YOU'RE SINKING!"
760 Z=INT(RND(1)*3)+1
770 IF W<>X AND Z=1 THEN M=M-1:PRINT "BUT, YOU PULL YOURSELF OUT!"
780 IF W<>X AND Z<>1 THEN PRINT "YOU LOSE!":END
790 IF W=X THEN S=S-1:PRINT "YOU STEPPED SAFELY!"
800 IF M<1 THEN 4000
810 IF S<1 THEN 5000
820 PRINT
830 PRINT " PRESS (RETURN) TO CONTINUE."
840 FL=0
850 GOSUB 3000
860 GOTO 90
999 REM *** STAY WHERE YOU ARE ***
1000 M=M-1
1010 IF M<1 THEN 4000
1020 FL=0
1030 GOTO 100
1999 REM *** CHOOSE DIRECTION ***
2000 PRINT "THEN PRESS THE (RETURN) KEY."
2010 PRINT
2020 PRINT "1) LEFT"
2030 PRINT "2) RIGHT"
2040 PRINT "3) STRAIGHT AHEAD"
2050 PRINT
2060 PRINT "WHICH WAY"
2065 INPUT W
2070 IF W<1 OR W>3 THEN PRINT "BETWEEN 1 AND 3 PLEASE!":GOTO 2060
2080 RETURN
2999 REM *** INPUT ROUTINE ***
3000 INPUT R$
3020 RETURN
3999 REM *** LOSE ***
4000 PRINT CHR$(125)
4010 PRINT "THE MONSTER EATS YOU AND SAYS,"
4020 PRINT "'COULD USE A BIT MORE SALT!'"
```

```
4030 PRINT "YOU LOSE, FOR SURE.":END
4999 REM *** WIN ***
5000 PRINT CHR$(125)
5010 FOR T=1 TO 200
5020 PRINT "   YOU MADE IT !!!";
5030 NEXT T
```

Commodore 64

```
1 REM *** THE MONSTER IN THE MARSH 64 ***
10 S=15
20 M=15
30 R=24
40 PRINT CHR$(147)
50 PRINT TAB(7)"THE MONSTER IN THE MARSH!"
60 PRINT
70 PRINT TAB(8)"PRESS (SHIFT) TO BEGIN."
80 GOSUB 3000
90 X=INT(RND(1)*3)+1
99 REM *** MAIN LOOP ***
100 PRINT CHR$(147)
110 IF R<1 THEN FL=1
120 PRINT "YOU ARE"S"STEP(S) FROM THE MARSH'S END"
130 PRINT "YOU HAVE"R"ROCK(S) IN YOUR POCKET"
140 PRINT "THE MONSTER IS"M"STEP(S) BEHIND YOU"
150 PRINT
160 PRINT "YOUR CHOICES ARE:"
170 PRINT
180 PRINT "1) TAKE A STEP"
190 PRINT "2) STAY WHERE YOU ARE"
200 IF FL=0 THEN PRINT "3) TOSS A ROCK"
210 PRINT
220 PRINT "TYPE A NUMBER, THEN PRESS (RETURN)."
230 INPUT "WHAT IS YOUR CHOICE";CH
240 IF FL=1 AND CH>2 THEN 220
250 IF CH<1 OR CH>3 THEN PRINT "BETWEEN 1 AND 3, PLEASE!": GOTO 220
260 ON CH GOTO 700,1000,300
299 REM *** TOSS A ROCK ***
300 PRINT CHR$(147)
310 PRINT "TYPE THE NUMBER OF THE DIRECTION"
320 PRINT "YOU WANT TO THROW THE ROCK,"
330 GOSUB 2000
340 FL=1
350 PRINT CHR$(147)
360 IF X<>W THEN PRINT "SPLASH!"
370 IF X=W THEN PRINT "THUD!"
380 R=R-1
390 IF M<1 THEN 4000
400 PRINT
410 PRINT "PRESS (SHIFT) TO CONTINUE."
420 GOSUB 3000
430 GOTO 100
699 REM *** TAKE A STEP ROUTINE ***
700 PRINT CHR$(147)
710 PRINT "PRESS THE NUMBER OF THE DIRECTION"
720 PRINT "YOU WANT TO STEP IN,"
730 GOSUB 2000
740 PRINT CHR$(147)
750 IF W<>X THEN PRINT "SPLASH!  YOU'RE SINKING!"
760 Z=INT(RND(1)*3)+1
```

```
770 IF W<>X AND Z=1 THEN M=M-1:PRINT "BUT, YOU PULL YOURSELF OUT!"
780 IF W<>X AND Z<>1 THEN PRINT "YOU LOSE!":END
790 IF W=X THEN S=S-1:PRINT "YOU STEPPED SAFELY!"
800 IF M<1 THEN 4000
810 IF S<1 THEN 5000
820 PRINT
830 PRINT "PRESS (SHIFT) TO CONTINUE."
840 FL=0
850 GOSUB 3000
860 GOTO 90
999 REM *** STAY WHERE YOU ARE ***
1000 M=M-1
1010 IF M<1 THEN 4000
1020 FL=0
1030 GOTO 100
1999 REM *** CHOOSE DIRECTION ***
2000 PRINT "THEN PRESS (RETURN)."
2010 PRINT
2020 PRINT "1) LEFT"
2030 PRINT "2) RIGHT"
2040 PRINT "3) STRAIGHT AHEAD"
2050 PRINT
2060 INPUT "WHICH WAY";W
2070 IF W<1 OR W>3 THEN PRINT "BETWEEN 1 AND 3, PLEASE!":GOTO 2060
2080 RETURN
2999 REM *** WAIT ROUTINE ***
3000 WAIT 653,1
3010 WAIT 653,1,1
3020 RETURN
3999 REM *** LOSE ***
4000 PRINT CHR$(147)
4010 PRINT "THE MONSTER EATS YOU AND SAYS,"
4020 PRINT "'COULD USE A BIT MORE SALT!'"
4030 PRINT "YOU LOSE, FOR SURE.":END
4999 REM *** WIN ***
5000 PRINT CHR$(147)
5010 FOR T=1 TO 200
5020 PRINT "   YOU MADE IT !!! ";
5030 NEXT T
```

IBM PC

```
1 REM *** MONSTER IN THE MARSH ***
10 S=15
20 M=15
30 R=24
40 CLS
50 PRINT TAB(9) "THE MONSTER"
60 PRINT TAB(8) "IN THE MARSH!"
70 PRINT
80 PRINT TAB(4) "PRESS ANY KEY TO BEGIN"
90 A$=INKEY$
100 IF A$="" THEN 90
109 REM *** MAIN LOOP ***
110 X=RND(3)
120 CLS
130 IF R<1 THEN FL=1
140 PRINT "YOU ARE"S"STEP(S)"
150 PRINT "FROM THE MARSH'S END"
160 PRINT
```

```
170 PRINT "YOU HAVE"R"ROCK(S)"
180 PRINT "IN YOUR POCKET"
190 PRINT
200 PRINT "THE MONSTER IS"M
210 PRINT "STEP(S) BEHIND YOU"
220 PRINT
230 PRINT "PRESS ANY KEY TO CONTINUE"
240 A$=INKEY$
250 IF A$="" THEN 240
260 CLS
270 PRINT "YOUR CHOICES ARE:"
280 PRINT
290 PRINT "1) TAKE A STEP"
300 PRINT "2) STAY WHERE YOU ARE"
310 IF FL=0 THEN PRINT "3) TOSS A ROCK"
320 PRINT
330 PRINT "TYPE A NUMBER"
340 PRINT "THEN PRESS (ENTER)"
350 PRINT "WHAT IS YOUR CHOICE"
360 INPUT CH
370 IF FL=1 AND CH>2 THEN 330
380 IF CH<1 OR CH>3 THEN 260
390 ON CH GOTO 700,1000,400
399 REM *** THROW A ROCK ***
400 CLS
410 PRINT "TYPE THE NUMBER"
420 PRINT "OF THE DIRECTION"
430 PRINT "YOU WANT TO"
440 PRINT "THROW THE ROCK"
450 PRINT
460 GOSUB 2000
470 FL=1
480 CLS
490 IF X<>W THEN PRINT "SPLASH!"
500 IF X=W THEN PRINT "THUD!"
510 R=R-1
520 IF M<1 THEN 4000
530 PRINT
540 PRINT "PRESS ANY KEY TO CONTINUE"
550 A$=INKEY$
560 IF A$="" THEN 550
570 GOTO 120
699 REM *** TAKE A STEP ***
700 CLS
710 PRINT "PRESS THE NUMBER"
720 PRINT "OF THE DIRECTION"
730 PRINT "YOU WANT TO STEP IN,":PRINT
740 GOSUB 2000
750 CLS:Z=RND(4)
760 IF W<>X THEN PRINT "SPLASH YOU'RE SINKING!"
780 IF W<>X AND Z=1 THEN M=M-1:PRINT "BUT, YOU PULL YOURSELF OUT!"
790 IF W<>X AND Z<>1 THEN PRINT "YOU LOSE!":END
800 IF W=X THEN S=S-1:PRINT "YOU STEPPED SAFELY!"
810 IF M<1 THEN 4000
820 IF S<1 THEN 5000
830 PRINT
840 FL=0
850 PRINT "PRESS ANY KEY TO CONTINUE"
860 A$=INKEY$
```

```
870 IF A$="" THEN 860
880 GOTO 110
999 REM *** STAY WHERE YOU ARE ***
1000 M=M-1
1010 IF M<1 THEN 4000
1020 FL=0
1030 GOTO 110
2000 PRINT "THEN PRESS"
2010 PRINT "THE (ENTER) KEY"
2020 PRINT
2030 PRINT "1) LEFT"
2040 PRINT "2) RIGHT"
2050 PRINT "3) STRAIGHT AHEAD"
2060 PRINT
2070 PRINT "WHICH WAY";
2080 INPUT W
2090 IF W<1 OR W>3 THEN PRINT "1,2, OR 3 PLEASE!":GOTO 2070
2100 RETURN
3999 REM *** TOO BAD! ***
4000 CLS
4010 PRINT "THE MONSTER EATS YOU AND SAYS,"
4020 PRINT "'COULD USE A BIT MORE SALT!"
4030 PRINT "YOU LOSE, FOR SURE.":END
4999 REM *** YOU MADE IT! ***
5000 CLS
5010 FOR T=1 TO 200
5020 PRINT "   YOU MADE IT!!! ";
5030 NEXT T
5040 END
```

TI-99/4A

```
1 REM *** THE MONSTER IN THE MARSH ***
10 S=15
20 M=15
30 R=24
40 CALL CLEAR
50 PRINT TAB(7);"THE MONSTER"
60 PRINT TAB(7);"IN THE MARSH"
70 PRINT
80 PRINT "PRESS (ENTER) TO BEGIN";
90 INPUT R$
99 REM *** MAIN LOOP ***
100 X=INT(3*RND)+1
110 CALL CLEAR
120 IF R<1 THEN 130 ELSE 140
130 FL=1
140 PRINT "YOU ARE";S;"STEP(S)"
150 PRINT "FROM THE MARSH'S EDGE"
160 PRINT
170 PRINT "YOU HAVE";R;"ROCK(S)"
180 PRINT "IN YOUR POCKET"
190 PRINT
200 PRINT "THE MONSTER IS";M
210 PRINT "STEP(S) BEHIND YOU"
220 PRINT
230 PRINT "YOUR CHOICES ARE:"
240 PRINT
250 PRINT "1) TAKE A STEP"
260 PRINT "2) STAY WHERE YOU ARE"
```

```
270 IF FL=0 THEN 280 ELSE 290
280 PRINT "3) TOSS A ROCK"
290 PRINT
300 PRINT "TYPE A NUMBER"
310 PRINT "THEN PRESS (ENTER)"
320 PRINT "WHAT IS YOUR CHOICE";
330 INPUT CH
340 IF FL=1 THEN 350 ELSE 360
350 IF CH>2 THEN 300 ELSE 360
360 IF CH<1 THEN 380 ELSE 370
370 IF CH>3 THEN 380 ELSE 410
380 PRINT "1,2 OR 3 PLEASE!"
390 PRINT
400 GOTO 230
410 ON CH GOTO 620,880,420
419 REM *** TOSS A ROCK ***
420 CALL CLEAR
430 PRINT "TYPE THE NUMBER"
440 PRINT "OF THE DIRECTION"
450 PRINT "YOU WANT TO"
460 PRINT "TOSS THE ROCK,"
470 PRINT
480 GOSUB 920
490 FL=1
500 CALL CLEAR
510 IF X<>W THEN 520 ELSE 530
520 PRINT "SPLASH!"
530 IF X=W THEN 540 ELSE 550
540 PRINT "THUD!"
550 R=R-1
560 IF M<1 THEN 1070
570 PRINT
580 PRINT "PRESS (ENTER)"
590 PRINT "TO CONTINUE."
600 INPUT R$
610 GOTO 110
619 REM *** TAKE A STEP ***
620 CALL CLEAR
630 PRINT "PRESS THE NUMBER"
640 PRINT "OF THE DIRECTION"
650 PRINT "YOU WANT TO STEP"
660 GOSUB 920
670 CALL CLEAR
680 IF W<>X THEN 690 ELSE 770
690 Z=INT(3*RND)+1
700 PRINT "SPLASH YOU'RE SINKING!"
710 IF Z=1 THEN 720 ELSE 740
720 PRINT "BUT, YOU PULL YOURSELF OUT!"
729 REM *** STAY WHERE YOU ARE ***
730 M=M-1
740 IF Z<>1 THEN 750 ELSE 770
750 PRINT "YOU LOSE!"
760 END
770 IF W=X THEN 780 ELSE 800
780 PRINT "YOU STEPPED SAFELY"
790 S=S-1
800 IF M<1 THEN 1070
810 IF S<1 THEN 1130
820 PRINT
```

```
830 PRINT "PRESS (ENTER)"
840 PRINT "TO CONTINUE."
850 INPUT R$
860 FL=0
870 GOTO 100
880 M=M-1
890 IF M<1 THEN 1070
900 FL=0
910 GOTO 100
919 REM *** DIRECTION LOOP ***
920 PRINT "THEN PRESS"
930 PRINT "THE (ENTER) KEY."
940 PRINT
950 PRINT "1) LEFT"
960 PRINT "2) RIGHT"
970 PRINT "3) STRAIGHT AHEAD"
980 PRINT
990 PRINT "WHICH WAY";
1000 INPUT W
1010 IF W<1 THEN 1040 ELSE 1060
1020 PRINT "1,2 OR 3 PLEASE!"
1030 IF W>3 THEN 1040 ELSE 1060
1040 PRINT "1,2 OR 3 PLEASE!"
1050 GOTO 1000
1060 RETURN
1069 REM *** YOU LOSE ***
1070 CALL CLEAR
1080 PRINT "THE MONSTER EATS"
1090 PRINT "YOU AND SAYS,"
1100 PRINT "'COULD USE A BIT MORE SALT'"
1110 PRINT "YOU LOSE, FOR SURE."
1120 END
1130 CALL CLEAR
1140 FOR T=1 TO 100
1150 PRINT "YOU MADE IT!!!"
1160 PRINT
1170 NEXT T
1180 END
```

Timex 1000 w/16K RAM Pack and Timex 1500

```
  1 REM **** MONSTER IN THE MARSH TIMEX ****
 10 LET S=15
 20 LET M=15
 30 LET R=24
 40 CLS
 50 PRINT TAB (4);"THE MONSTER IN THE MARSH"
 60 PRINT
 70 PRINT TAB (5);"PRESS (ENTER) TO BEGIN."
 80 INPUT R$
 90 RAND
100 LET F=0
110 LET C=0
120 LET W=0
130 LET X=INT (RND*3)+1
139 REM *** MAIN LOOP ***
140 CLS
150 IF R<1 THEN LET F=1
160 PRINT "YOU ARE ";S;" STEP(S) FROM THE"
170 PRINT "END OF THE MARSH.  YOU HAVE ";R
```

```
180 PRINT "ROCK(S) IN YOUR POCKET."
190 PRINT "THE MONSTER IS ";M;" STEP(S)"
200 PRINT "BEHIND YOU."
210 PRINT
220 PRINT "YOUR CHOICES ARE:"
230 PRINT
240 PRINT "1) TAKE A STEP"
250 PRINT "2) STAY WHERE YOU ARE"
260 IF F=0  THEN PRINT "3) TOSS A ROCK"
270 PRINT
280 PRINT "TYPE A NUMBER,"
290 PRINT "THEN PRESS <ENTER>."
300 PRINT "WHAT IS YOUR CHOICE?"
310 INPUT C
320 IF F=1 AND C>2  THEN GOTO 280
330 IF C<1 OR C>3 THEN PRINT "1,2 OR 3 PLEASE."
340 IF C<1 OR C>3 THEN GOTO 280
350 IF C=1 THEN GOTO 700
360 IF C=2 THEN GOTO 1000
370 IF C=3 THEN GOTO 400
400 CLS
410 PRINT "TYPE THE NUMBER OF THE DIRECTION"
420 PRINT "YOU WANT TO THROW THE ROCK."
430 GOSUB 2000
440 LET F=1
450 CLS
460 IF X<>W THEN PRINT "SPLASH"
470 IF X=W THEN PRINT "THUD"
480 LET R=R-1
490 IF M<1 THEN GOTO 4000
500 PRINT
510 PRINT "PRESS (ENTER) TO CONTINUE."
520 INPUT R$
530 GOTO 140
699 REM *** TAKE A STEP ***
700 CLS
710 PRINT "TYPE THE NUMBER OF THE DIRECTION"
720 PRINT "YOU WANT TO STEP IN."
730 GOSUB 2000
740 CLS
750 IF W<>X THEN PRINT "SPLASH"
760 LET Z=0
770 LET Z=INT (RND*3)+1
780 IF W<>X AND Z=1 THEN LET M=M-1
790 IF W<>X AND Z=1 THEN PRINT "BUT YOU PULLED YOURSELF OUT."
800 IF W<>X AND Z<>1 THEN PRINT "YOU LOSE."
810 IF W<>X AND Z<>1 THEN GOTO 5040
820 IF W=X THEN LET S=S-1
830 IF W=X THEN PRINT "YOU STEPED SAFELY."
840 IF M<1 THEN GOTO 4000
850 IF S<1 THEN GOTO 5000
860 PRINT
870 PRINT "PRESS (ENTER) TO CONTINUE."
880 LET F=0
890 INPUT R$
900 GOTO 130
999 REM *** THROW A ROCK ***
1000 LET M=M-1
1010 IF M<1 THEN GOTO 4000
```

```
1020 LET F=0
1030 GOTO 140
1999 REM *** CHOOSE DIRECTION ***
2000 PRINT "THEN PRESS THE (ENTER) KEY."
2010 PRINT
2020 PRINT "1) LEFT"
2030 PRINT "2) RIGHT"
2040 PRINT "3) STRAIGHT"
2050 PRINT
2060 PRINT "WHICH WAY?"
2070 INPUT W
2080 IF W<1 OR W>3 THEN PRINT "1,2 OR 3 PLEASE."
2090 IF W<1 OR W>3 THEN GOTO 2060
2100 RETURN
3999 REM *** LOSE ***
4000 CLS
4010 PRINT "THE MONSTER EATS YOU AND SAYS,"
4020 PRINT "COULD USE A BIT MORE SALT."
4030 PRINT "YOU LOSE, FOR SURE."
4040 GOTO 5040
4999 REM *** WIN ***
5000 CLS
5010 FOR T=1 TO 46
5020 PRINT "    YOU MADE IT";
5030 NEXT T
5040 REM *** END ***
```

TRS-80 Color Computer

```
1 REM *** THE MONSTER IN THE MARSH TRS-80 COLOR ***
10 S=15
20 M=15
30 R=24
40 CLS
50 PRINT TAB(9) "THE MONSTER"
60 PRINT TAB(8) "IN THE MARSH!"
70 PRINT
80 PRINT TAB(4) "PRESS ANY KEY TO BEGIN"
90 A$=INKEY$
100 IF A$="" THEN GOTO 90
109 REM *** MAIN LOOP ***
110 X=RND(3)
120 CLS
130 IF R(1 THEN FL=1
140 PRINT "YOU ARE"S"STEP(S)"
150 PRINT "FROM THE MARSH'S END"
160 PRINT
170 PRINT "YOU HAVE"R"ROCK(S)"
180 PRINT "IN YOUR POCKET"
190 PRINT
200 PRINT "THE MONSTER IS"M
210 PRINT "STEP(S) BEHIND YOU"
220 PRINT
230 PRINT "PRESS ANY KEY TO CONTINUE"
240 A$=INKEY$
250 IF A$="" THEN GOTO 240
260 CLS
270 PRINT "YOUR CHOICES ARE:"
280 PRINT
290 PRINT "1) TAKE A STEP"
```

```
300 PRINT "2) STAY WHERE YOU ARE"
310 IF FL=0 THEN PRINT "3) TOSS A ROCK"
320 PRINT
330 PRINT "TYPE A NUMBER"
340 PRINT "THEN PRESS (ENTER)"
350 PRINT "WHAT IS YOUR CHOICE";
360 INPUT CH
370 IF FL=1 AND CH>2 THEN 330
380 IF CH<1 OR CH>3 THEN GOTO 260
390 ON CH GOTO 700,1000,400
399 REM *** CHUCK THE ROCK ***
400 CLS
410 PRINT "TYPE THE NUMBER"
420 PRINT "OF THE DIRECTION"
430 PRINT "YOU WANT TO"
440 PRINT "THROW THE ROCK"
450 PRINT
460 GOSUB 2000
470 FL=1
480 CLS
490 IF X<>W THEN PRINT "SPLASH!"
500 IF X=W THEN PRINT "THUD"
510 R=R-1
520 IF M<1 THEN 4000
530 PRINT
540 PRINT "PRESS ANY KEY TO CONTINUE"
550 A$=INKEY$
560 IF A$="" THEN 550
570 GOTO 120
699 REM *** TAKE A STEP ROUTINE ***
700 CLS
710 PRINT "PRESS THE NUMBER"
720 PRINT "OF THE DIRECTION"
730 PRINT "YOU WANT TO STEP IN,":PRINT
740 GOSUB 2000
750 CLS:Z=RND(4)
760 IF W<>X THEN PRINT "SPLASH YOU'RE SINKING!"
780 IF W<>X AND Z=1 THEN M=M-1:PRINT "BUT, YOU PULL YOURSELF OUT!"
790 IF W<>X AND Z<>1 THEN PRINT "YOU LOSE!":END
800 IF W=X THEN S=S-1:PRINT "YOU STEPPED SAFELY!"
810 IF M<1 THEN 4000
820 IF S<1 THEN 5000
830 PRINT
840 FL=0
850 PRINT "PRESS ANY KEY TO CONTINUE"
860 A$=INKEY$
870 IF A$="" THEN 860
880 GOTO 110
999 REM *** STAY WHERE YOU ARE ***
1000 M=M-1
1010 IF M<1 THEN 4000
1020 FL=0
1030 GOTO 110
2000 PRINT "THEN PRESS"
2010 PRINT "THE (ENTER) KEY."
2020 PRINT
2030 PRINT "1) LEFT"
2040 PRINT "2) RIGHT"
2050 PRINT "3) STRAIGHT AHEAD"
```

```
2060 PRINT
2070 PRINT "WHICH WAY";
2080 INPUT W
2090 IF W<1 OR W>3 THEN PRINT "1,2 OR 3 PLEASE!":GOTO 2070
2100 RETURN
3999 REM *** SORRY CHARLIE ***
4000 CLS
4010 PRINT "THE MONSTER EATS YOU AND SAYS,"
4020 PRINT "'COULD USE A BIT MORE SALT!"
4030 PRINT "YOU LOSE, FOR SURE.":END
4999 REM *** YOU'RE IN LUCK ***
5000 CLS
5010 FOR T=1 TO 200
5020 PRINT"   YOU MADE IT!!! ";
5030 NEXT T
5040 END
```

TRS-80 Model III and Model 4

```
1 REM *** THE MONSTER IN THE MARSH TRS-80 MODELS 3 AND 4 ***
10 S=15
20 M=15
30 R=24
40 CLS
50 PRINT TAB(32)"THE MONSTER"
60 PRINT TAB(31) "IN THE MARSH!"
70 PRINT
80 PRINT TAB(26)"PRESS ANY KEY TO BEGIN"
90 A$=INKEY$
100 IF A$="" THEN GOTO 90
109 REM *** MAIN LOOP ***
110 X=RND(3)
120 CLS
130 IF R<1 THEN FL=1
140 PRINT "YOU ARE"S"STEP(S)"
150 PRINT "FROM THE MARSH'S END"
160 PRINT
170 PRINT "YOU HAVE"R"ROCK(S)"
180 PRINT "IN YOUR POCKET"
190 PRINT
200 PRINT "THE MONSTER IS"M
210 PRINT "STEP(S) BEHIND YOU"
220 PRINT
230 PRINT "PRESS ANY KEY TO CONTINUE"
240 A$=INKEY$
250 IF A$="" THEN GOTO 240
260 CLS
270 PRINT "YOUR CHOICES ARE:"
280 PRINT
290 PRINT "1) TAKE A STEP"
300 PRINT "2) STAY WHERE YOU ARE"
310 IF FL=0 THEN PRINT "3) TOSS A ROCK"
320 PRINT
330 PRINT "TYPE A NUMBER"
340 PRINT "THEN PRESS (ENTER)
350 PRINT "WHAT IS YOUR CHOICE"
360 INPUT CH
370 IF FL=1 AND CH>2 THEN 330
380 IF CH<1 OR CH>3 THEN 260
390 ON CH GOTO 580,770,400
```

```
400 CLS
410 PRINT "TYPE THE NUMBER"
420 PRINT "OF THE DIRECTION"
430 PRINT "YOU WANT TO"
440 PRINT "THROW THE ROCK"
450 PRINT
460 GOSUB 810
470 FL=1
480 CLS
490 IF X<>W THEN PRINT "SPLASH!"
500 IF X=W THEN PRINT "THUD"
510 R=R-1
520 IF M<1 THEN 920
530 PRINT
540 PRINT "PRESS ANY KEY TO CONTINUE"
550 A$=INKEY$
560 IF A$="" THEN 550
570 GOTO 120
579 REM *** TAKE A STEP ROUTINE ***
580 CLS
590 PRINT "PRESS THE NUMBER"
600 PRINT "OF THE DIRECTION"
610 PRINT "YOU WANT TO STEP IN,":PRINT
620 GOSUB 810
630 CLS
640 Z=RND(4)
650 IF W<>X THEN PRINT "SPLASH YOU'RE SINKING!"
660 IF W<>X AND Z=1 THEN M=M-1:PRINT "BUT, YOU PULL YOURSELF OUT!"
670 IF W<>X AND Z<>1 THEN PRINT "YOU LOSE!":END
680 IF W=X THEN S=S-1:PRINT "YOU STEPPED SAFELY!"
690 IF M<1 THEN 920
700 IF S<1 THEN 960
710 PRINT
720 FL=0
730 PRINT "PRESS ANY KEY TO CONTINUE"
740 A$=INKEY$
750 IF A$="" THEN 740
760 GOTO 110
769 REM *** STAY WHERE YOU ARE ***
770 M=M-1
780 IF M<1 THEN 920
790 FL=0
800 GOTO 110
810 PRINT "THEN PRESS"
820 PRINT "THE (ENTER) KEY."
830 PRINT
840 PRINT "1) LEFT"
850 PRINT "2) RIGHT"
860 PRINT "3) STRAIGHT AHEAD"
870 PRINT
880 PRINT "WHICH WAY"
890 INPUT W
900 IF W<1 OR W>3 THEN PRINT "1,2 OR 3 PLEASE!":GOTO 880
910 RETURN
919 REM *** SORRY CHARLIE ***
920 CLS
930 PRINT "THE MONSTER EATS YOU AND SAYS,"
940 PRINT "'COULD USE A BIT MORE SALT!"
950 PRINT "YOU LOSE, FOR SURE.":END
```

```
959 REM *** YOU'RE IN LUCK ***
960 CLS
970 FOR T=1 TO 200
980 PRINT "   YOU MADE IT!!! ";
990 NEXT T
1000 END
```

VIC-20

```
1 REM *** THE MONSTER IN THE MARSH VIC-20 ***
10 S=15
20 M=15
30 R=24
40 PRINT CHR$(147)
50 PRINT TAB(5)"THE MONSTER"
60 PRINT TAB(4)"IN THE  MARSH"
70 PRINT
80 PRINT "PRESS (SHIFT) TO BEGIN"
90 GOSUB 3000
99 REM *** MAIN LOOP ***
100 X=INT(RND(1)*3)+1
110 PRINT CHR$(147)
120 IF R<1 THEN FL=1
130 PRINT "YOU ARE"S"STEP(S)"
140 PRINT "FROM THE MARSH'S END"
150 PRINT
160 PRINT "YOU HAVE"R"ROCK(S)"
170 PRINT "IN YOUR POCKET"
180 PRINT
190 PRINT "THE MONSTER IS"M
200 PRINT "STEP(S) BEHIND YOU"
210 PRINT
220 PRINT "YOUR CHOICES ARE:"
230 PRINT
240 PRINT "1) TAKE A STEP"
250 PRINT "2) STAY WHERE YOU ARE"
260 IF FL=0 THEN PRINT"3) TOSS A ROCK"
270 PRINT
280 PRINT "TYPE A NUMBER"
290 PRINT "THEN PRESS (RETURN)"
300 INPUT "WHAT IS YOUR CHOICE";CH
310 IF FL=1 AND CH>2 THEN 280
320 IF CH<1 OR CH>3 THEN PRINT:GOTO 220
330 ON CH GOTO 700,1000,340
339 REM *** TOSS A ROCK ROUTINE ***
340 PRINT CHR$(147)
350 PRINT "TYPE THE NUMBER"
360 PRINT "OF THE DIRECTION"
370 PRINT "YOU WANT TO"
380 PRINT "TOSS THE ROCK,"
390 PRINT
400 GOSUB 2000
410 FL=1
420 PRINT CHR$(147)
430 IF X<>W THEN PRINT "SPLASH!"
440 IF X=W THEN PRINT "THUD!"
450 R=R-1
460 IF M<1 THEN 4000
470 PRINT
480 PRINT "PRESS (SHIFT)"
```

```
490 PRINT "TO CONTINUE."
500 GOSUB 3000
510 GOTO 110
699 REM *** TAKE A STEP ROUTINE ***
700 PRINT CHR$(147)
710 PRINT "PRESS THE NUMBER"
720 PRINT "OF THE DIRECTION"
730 PRINT "YOU WANT TO STEP IN,"
740 GOSUB 2000
750 PRINT CHR$(147)
760 IF W<>X THEN PRINT "SPLASH YOU'RE SINKING!"
780 IF W<>X AND Z=1 THEN M=M-1:PRINT "BUT, YOU PULL YOURSELF OUT!"
790 IF W<>X AND Z<>1 THEN PRINT "YOU LOSE!":END
800 IF W=X THEN S=S-1:PRINT "YOU STEPPED SAFELY!"
810 IF M<1 THEN 4000
820 IF S<1 THEN 5000
830 PRINT
840 PRINT "PRESS (SHIFT)"
850 PRINT "TO CONTINUE."
860 FL=0
870 GOSUB 3000
890 GOTO 100
999 REM *** STAY WHERE YOU ARE ***
1000 M=M-1
1010 IF M<1 THEN 4000
1020 FL=0
1030 GOTO 100
1999 REM *** CHOOSE DIRECTION ***
2000 PRINT "THEN PRESS"
2010 PRINT "THE (RETURN) KEY."
2020 PRINT
2030 PRINT "1) LEFT"
2040 PRINT "2) RIGHT"
2050 PRINT "3) STRAIGHT AHEAD"
2060 PRINT
2070 INPUT "WHICH WAY";W
2080 IF W<1 OR W>3 THEN PRINT:GOTO 2070
2090 Z=INT(RND(1)*4)+1
2100 RETURN
2999 REM *** WAIT ROUTINE ***
3000 WAIT 653,1
3010 WAIT 653,1,1
3020 RETURN
3999 REM *** LOSE ***
4000 PRINT CHR$(147)
4010 PRINT "THE MONSTER EATS YOU  AND SAYS,"
4020 PRINT "'COULD USE A BIT MORE SALT!'"
4030 PRINT "YOU LOSE, FOR SURE.":END
4999 REM *** WIN ***
5000 PRINT CHR$(147)
5010 FOR T=1 TO 200
5020 PRINT "   YOU MADE IT !!! ";
5030 NEXT T
```

BONUS PROGRAM #8

TEAM BATTING AVERAGE

The TEAM BATTING AVERAGE program can keep track of your baseball team's batting average. The program will ask for each team member's name, total at bats, walks, and sacrifices, and total hits. Using these figures, the computer will display each team member's batting average, and the team average. The program also can be used to follow the averages of your favorite professional players and teams each day of the season.

ADAM

```
  1 REM  *** TEAM BATTING AVERAGE  ADAM ***
 10 HOME
 20 PRINT "TEAM BATTING AVERAGE PROGRAM"
 30 PRINT
 40 PRINT "Press (RETURN) after each reply."
 50 PRINT
 60 INPUT "How many players: "; p
 79 REM  *** dimension arrays ***
 80 DIM p$(p), ab(p), ws(p), h(p)
 89 REM  *** input variables ***
 90 HOME
100 PRINT "Please answer the questions."
110 PRINT "Press (RETURN) after each reply."
120 PRINT
130 FOR t = 1 TO p
140 PRINT "What is player #"; t; "'s name"
150 INPUT p$(t)
160 PRINT "What were "; p$(t); "'s total at bats"
170 INPUT ab(t)
180 PRINT "How many walks and sacrifices"
190 INPUT ws(t)
200 PRINT "How many hits"
210 INPUT h(t)
220 IF h(t)+ws(t) > ab(t) THEN  PRINT "Number too high": GOTO 160
230 HOME
240 NEXT t
250 PRINT "AVERAGE", "PLAYER"
260 PRINT
269 REM  *** figure averages ***
270 FOR t = 1 TO p
280 b = h(t)/(ab(t)-ws(t))
289 REM  *** round off to three digits ***
290 a = INT(b*1000+.5)/100
300 ta = ta+ab(t)
310 th = th+h(t)
320 tw = tw+ws(t)
329 REM  *** print averages ***
330 PRINT a, p$(t)
340 NEXT t
350 PRINT
360 tv = th/(ta-tw)
```

```
370 PRINT "TEAM AVERAGE="; INT(tv*1000+.5)/1000
380 PRINT
390 PRINT "Press any key to run again."
400 GET n$
410 RUN
```

Apple II and Apple IIe

```
1  REM  *** TEAM BATTING  AVERAGE APPLE ***
10  HOME
20  PRINT "TEAM BATTING AVERAGE PROGRAM"
30  PRINT
40  PRINT "PRESS (RETURN) AFTER EACH REPLY."
50  PRINT
60  INPUT "HOW MANY PLAYERS: ";P
79  REM  *** DIMENSION ARRAYS ***
80  DIM P$(P),AB(P),WS(P),H(P)
89  REM  *** INPUT VARIABLES ***
90  HOME
100  PRINT "PLEASE ANSWER THE QUESTIONS."
110  PRINT "PRESS (RETURN) AFTER EACH REPLY."
120  PRINT
130  FOR T = 1 TO P
140  PRINT "WHAT IS PLAYER #"T"'S NAME"
150  INPUT P$(T)
160  PRINT "WHAT WERE "P$(T)"'S TOTAL AT BATS"
170  INPUT AB(T)
180  PRINT "HOW MANY WALKS AND SACRIFICES"
190  INPUT WS(T)
200  PRINT "HOW MANY HITS"
210  INPUT H(T)
220  IF H(T) + WS(T) > AB(T) THEN  PRINT "NUMBER TOO HIGH": GOTO 160
230  HOME
240  NEXT T
250  PRINT "AVERAGE","PLAYER"
260  PRINT
269  REM  *** FIGURE AVERAGES ***
270  FOR T = 1 TO P
280 B = H(T) / (AB(T) - WS(T))
289  REM  *** ROUND OFF TO THREE DIGITS ***
290 A =  INT (B * 1000 + .5) / 1000
300 TA = TA + AB(T)
310 TH = TH + H(T)
320 TW = TW + WS(T)
329  REM  *** PRINT AVERAGES ***
330  PRINT A,P$(T)
340  NEXT T
350  PRINT
360 TV = TH / (TA - TW)
370  PRINT "TEAM AVERAGE=" INT (TV * 1000 + .5) / 1000
380  PRINT
390  PRINT "PRESS ANY KEY TO RUN AGAIN."
400  GET N$
410  RUN
```

Atari

```
1 REM *** TEAM BATTING AVERAGE ATARI ***
10 PRINT CHR$(125)
20 PRINT "TEAM BATTING AVERAGE PROGRAM"
30 PRINT
```

```
40 PRINT "PRESS (RETURN) AFTER EACH REPLY."
50 PRINT
60 PRINT "HOW MANY PLAYERS";
70 INPUT P
79 REM *** DIMENSION ARRAYS ***
80 DIM P$(1200),AB(P),WS(P),H(P),TEMP$(20),R$(1),S(400)
89 REM *** INPUT VARIABLES ***
90 PRINT CHR$(125)
100 PRINT "PRESS (RETURN) AFTER EACH REPLY"
110 PRINT
120 FOR T=1 TO P
130 S(T)=LEN(P$)+1
140 PRINT "WHAT S THE NAME OF"
150 PRINT "PLAYER #";T;
155 P$(S(T))=TEMP$
160 INPUT TEMP$
170 P$(S(T))=TEMP$
180 PRINT
190 PRINT "WHAT WERE ";TEMP$;"'S"
200 PRINT "TOTAL AT BATS";
210 INPUT D
220 AB(T)=D
230 PRINT
240 PRINT "HOW MANY WALKS"
250 PRINT "AND SACRIFICES";
260 INPUT D
270 WS(T)=D
280 PRINT
290 PRINT "HOW MANY HITS";
300 INPUT D
310 H(T)=D
320 IF WS(T)+H(T)>AB(T) THEN PRINT :PRINT "NUMBER TO HIGH":GOTO 230
330 PRINT CHR$(125)
340 NEXT T
350 S(T)=LEN(P$)+1
360 PRINT "AVERAGE","PLAYER"
370 PRINT
379 REM *** FIGURE AVERAGES ***
380 FOR T=1 TO P
390 B=H(T)/(AB(T)-WS(T))
399 REM *** ROUND OFF TO THREE DIGITS ***
400 A=INT(B*1000+0.5)/1000
410 TA=TA+AB(T)
420 TH=TH+H(T)
430 TW=TW+WS(T)
440 PRINT A,P$(S(T),S(T+1)-1)
449 REM *** PRINT AVERAGES ***
450 NEXT T
460 PRINT
470 TV=TH/(TA-TW)
480 PRINT "TEAM AVERAGE=";INT(TV*1000+0.5)/1000
490 PRINT
500 PRINT "PRESS (RETURN) TO RUN AGAIN"
510 INPUT R$
520 RUN
```

Commodore 64

```
1 REM *** TEAM BATTING AVERAGE 64 ***
10 PRINT CHR$(147)
20 PRINT "TEAM BATTING AVERAGE PROGRAM"
```

```
30 PRINT
40 PRINT "PRESS (RETURN) AFTER EACH REPLY."
50 PRINT
60 PRINT "HOW MANY PLAYERS";
70 INPUT P
79 REM *** DIMENSION ARRAYS ***
80 DIM P$(P),AB(P),WS(P),H(P)
89 REM *** INPUT VARIABLES ***
90 PRINT CHR$(147)
100 PRINT "PLEASE ANSWER THE QUESTIONS."
110 PRINT "PRESS (RETURN) AFTER EACH REPLY."
120 PRINT
130 FOR T=1 TO P
140 PRINT "WHAT IS PLAYER #"T"'S NAME"
150 INPUT P$(T)
160 PRINT "WHAT WERE "P$(T)"'S TOTAL AT BATS"
170 INPUT AB(T)
180 PRINT "HOW MANY WALKS AND SACRIFICES"
190 INPUT WS(T)
200 PRINT "HOW MANY HITS"
210 INPUT H(T)
220 IF H(T)+WS(T))AB(T) THEN PRINT"NUMBER TOO HIGH":GOTO 160
230 PRINT CHR$(147)
240 NEXT T
250 PRINT "AVERAGE","PLAYER"
260 PRINT
269 REM *** FIGURE AVERAGES ***
270 FOR T=1 TO P
280 B=H(T)/(AB(T)-WS(T))
289 REM *** ROUND OFF TO THREE DIGITS ***
290 A=INT(B*1000+.5)/1000
300 TA=TA+AB(T)
310 TH=TH+H(T)
320 TW=TW+WS(T)
329 REM *** PRINT AVERAGES ***
330 PRINT A,P$(T)
340 NEXT T
350 PRINT
360 TV=TH/(TA-TW)
370 PRINT "TEAM AVERAGE="INT(TV*1000+.5)/1000
380 PRINT
390 PRINT "PRESS (SHIFT) TO RUN AGAIN."
399 REM *** WAIT ROUTINE ***
400 WAIT 653,1
410 WAIT 653,1,1
420 RUN
```

IBM PC

```
1 REM *** TEAM BATTING AVERAGE IBM-PC ***
10 CLS
20 PRINT "TEAM BATTING AVERAGE PROGRAM"
30 PRINT
40 PRINT "PRESS (ENTER) AFTER EACH REPLY."
50 PRINT
60 PRINT "HOW MANY PLAYERS";
70 INPUT P
79 REM *** DIMENSION ARRAYS ***
80 DIM P$(P),AB(P),WS(P),H(P)
89 REM *** INPUT VARIABLES ***
```

```
90 CLS
100 PRINT "PRESS (ENTER) AFTER EACH REPLY."
110 PRINT
120 FOR T=1 TO P
130 PRINT "WHAT IS THE NAME OF"
140 PRINT "PLAYER #";T;
150 INPUT P$(T)
160 PRINT
170 PRINT "WHAT WERE  ";P$(T);"'S"
180 PRINT "TOTAL AT BATS";
190 INPUT AB(T)
200 PRINT
210 PRINT "HOW MANY WALKS"
220 PRINT "AND SACRIFICES";
230 INPUT WS(T)
240 PRINT
250 PRINT "HOW MANY HITS";
260 INPUT H(T)
270 IF H(T)+WS(T)>AB(T) THEN PRINT "NUMBER TOO HIGH":GOTO 170
280 CLS
290 NEXT T
300 PRINT "AVERAGE","PLAYERS"
310 PRINT
319 REM *** FIGURE AVERAGES ***
320 FOR T=1 TO P
330 B=H(T)/(AB(T)-WS(T))
340 A=INT(B*1000+.5)/1000
350 TA=TA+AB(T)
360 TH=TH+H(T)
370 TW=TW+WS(T)
379 REM *** PRINT AVERAGES ***
380 PRINT A,P$(T)
390 NEXT T
400 PRINT
410 TV=TH/(TA-TW)
420 PRINT "TEAM AVERAGE=";INT(TV*1000+.5)/1000
430 PRINT
440 PRINT "PRESS (ENTER) TO RUN AGAIN"
449 REM *** WAIT ROUTINE ***
450 INPUT R$
460 RUN
```

TI-99/4A

```
1 REM  *** TEAM BATTING AVERAGE TI99/4A ***
10 CALL CLEAR
20 PRINT "TEAM BATTING AVERAGE PROGRAM"
30 PRINT
40 PRINT "PRESS (ENTER) AFTER          EACH REPLY."
50 PRINT
60 PRINT "HOW MANY PLAYERS";
70 INPUT P
79 REM  *** DIMENSION ARRAYS ***
80 DIM P$(30),AB(30),WS(30),H(30)
90 CALL CLEAR
100 PRINT "PLEASE ANSWER THE QUESTIONS."
110 PRINT
120 PRINT "PRESS (ENTER) AFTER          EACH REPLY."
130 PRINT
139 REM  *** INPUT VARIABLES ***
```

```
140 FOR T=1 TO P
150 PRINT "WHAT IS NAME OF"
160 PRINT "PLAYER #";T;
170 INPUT P$(T)
180 PRINT
190 PRINT "WHAT WERE ";P$(T);"'S"
200 PRINT "TOTAL AT BATS";
210 INPUT AB(T)
220 PRINT
230 PRINT "HOW MANY WALKS"
240 PRINT "AND SACRIFICES";
250 INPUT WS(T)
260 PRINT
270 PRINT "HOW MANY HITS";
280 INPUT H(T)
290 IF H(T)+WS(T)>AB(T)THEN 300 ELSE 330
300 PRINT
310 PRINT "NUMBER TO HIGH"
320 GOTO 220
330 CALL CLEAR
340 NEXT T
350 CALL CLEAR
360 PRINT "PLAYER","AVERAGE."
370 PRINT
379 REM  *** FIGURE AVERAGES ***
380 FOR T=1 TO P
390 B=H(T)/(AB(T)-WS(T))
399 REM  *** ROUND OFF TO THREE DIGITS ***
400 A=INT(B*1000+.5)/1000
410 TA=TA+AB(T)
420 TH=TH+H(T)
430 TW=TW+WS(T)
439 REM  *** PRINT AVERAGES ***
440 PRINT P$(T),A
450 NEXT T
460 PRINT
470 TV=TH/(TA-TW)
480 PRINT "TEAM AVERAGE=";INT(TV*1000+.5)/1000
490 PRINT
500 PRINT "PRESS (ENTER) TO RUN REVERSE"
510 INPUT R$
520 GOTO 10
```

Timex 1000 w/16K RAM Pack and Timex 1500

```
  1 REM *** TEAM BATTING AVERAGE TIMEX ***
 10 CLS
 20 PRINT "TEAM BATTING AVERAGE PROGRAM"
 30 PRINT
 40 PRINT "PRESS (ENTER) AFTER EACH REPLY."
 50 PRINT
 60 PRINT "HOW MANY PLAYERS?";
 70 INPUT P
 79 REM *** DIMENSION ARRAYS ***
 80 DIM P$(P,15)
 90 DIM B(P)
100 DIM W(P)
110 DIM H(P)
119 REM *** INPUT VARIABLES ***
120 CLS
```

```
130 PRINT "PLEASE ANSWER THE QUESTIONS."
140 PRINT "PRESS (ENTER) AFTER EACH REPLY."
150 PRINT
160 FOR T=1 TO P
170 PRINT "WHAT IS THE NAME OF"
180 PRINT "PLAYER NUMBER ";T;"?"
190 INPUT P$(T)
200 PRINT
210 PRINT "WHAT WERE THE TOTAL"
220 PRINT "AT BATS FOR ";P$(T);"?"
230 INPUT B(T)
240 PRINT
250 PRINT "HOW MANY WALKS AND SACRIFICES?"
260 INPUT W(T)
270 PRINT
280 PRINT "HOW MANY HITS?"
290 INPUT H(T)
300 IF H(T)+W(T)>B(T) THEN GOTO 240
310 CLS
320 NEXT T
330 PRINT "AVERAGE","PLAYER"
340 PRINT
350 LET Q=0
360 LET Y=0
370 LET U=0
380 LET V=0
390 LET A=0
399 REM *** FIGURE AVERAGES ***
400 FOR T=1 TO P
410 LET G=H(T)/(B(T)-W(T))
419 REM *** ROUND OFF TO THREE DIGITS ***
420 LET A=INT (G*1000+.5)/1000
430 LET Q=Q+B(T)
440 LET Y=Y+H(T)
450 LET U=U+W(T)
459 REM *** PRINT AVERAGES ***
460 PRINT A,P$(T)
470 NEXT T
480 PRINT
490 LET V=Y/(Q-U)
500 PRINT "TEAM AVERAGE=";INT (V*1000+.5)/1000
510 PRINT
520 PRINT "PRESS (ENTER) TO RUN AGAIN."
530 INPUT C$
540 RUN
```

TRS-80 Color Computer

```
1 REM *** TEAM BATTING AVERAGE TRS-COLOR ***
10 CLS
20 PRINT "TEAM BATTING AVERAGE PROGRAM"
30 PRINT
40 PRINT "PRESS (ENTER) AFTER EACH REPLY."
50 PRINT
60 PRINT "HOW MANY PLAYERS";
70 INPUT P
79 REM *** DIMENSION ARRAYS ***
80 DIM P$(P),AB(P),WS(P),H(P)
89 REM *** INPUT VARIABLES ***
90 CLS
```

```
100 PRINT "PRESS (ENTER) AFTER EACH REPLY."
110 PRINT
120 FOR T=1 TO P
130 PRINT "WHAT IS THE NAME OF"
140 PRINT "PLAYER #";T;
150 INPUT P$(T)
160 PRINT
170 PRINT "WHAT WERE ";P$(T);"'S"
180 PRINT "TOTAL AT BATS";
190 INPUT AB(T)
200 PRINT
210 PRINT "HOW MANY WALKS"
220 PRINT "AND SACRIFICES";
230 INPUT WS(T)
240 PRINT
250 PRINT "HOW MANY HITS";
260 INPUT H(T)
270 IF H(T)+WS(T))AB(T) THEN PRINT "NUMBER TOO HIGH":GOTO 170
280 CLS
290 NEXT T
300 PRINT "AVERAGE","PLAYERS"
310 PRINT
319 REM *** FIGURE AVERAGES ***
320 FOR T = 1 TO P
330 B=H(T)/(AB(T)-WS(T))
339 REM *** ROUND OFF TO THREE DIGITS ***
340 A=INT(B*1000+.5)/1000
350 TA=TA+AB(T)
360 TH=TH+H(T)
370 TW=TW+WS(T)
379 REM *** PRINT AVERAGES ***
380 PRINT A,P$(T)
390 NEXT T
400 PRINT
410 TV=TH/(TA-TW)
420 PRINT "TEAM AVERAGE=";INT(TV*1000+.5)/1000
430 PRINT
440 PRINT "PRESS (ENTER) TO RUN AGAIN"
449 REM *** WAIT ROUTINE ***
450 INPUT R$
460 RUN
```

TRS-80 Model III and Model 4

```
1 REM *** TEAM BATTING AVERAGE TRS-80 MODELS 3 AND 4 ***
10 CLS
20 PRINT "TEAM BATTING AVERAGE PROGRAM"
30 PRINT
40 PRINT "PRESS (ENTER) AFTER EACH REPLY."
50 PRINT
60 PRINT "HOW MANY PLAYERS";
70 INPUT P
79 REM *** DIMENSION ARRAYS ***
80 DIM P$(P),AB(P),WS(P),H(P)
89 REM *** INPUT VARIABLES ***
90 CLS
100 PRINT "PRESS (ENTER) AFTER EACH REPLY."
110 PRINT
120 FOR T=1 TO P
130 PRINT "WHAT IS THE NAME OF PLAYER #";T;
```

```
150 INPUT P$(T)
160 PRINT
170 PRINT "WHAT WERE ";P$(T);"'S TOTAL AT BATS";
190 INPUT AB(T)
200 PRINT
210 PRINT "HOW MANY WALKS AND SACRIFICES";
230 INPUT WS(T)
240 PRINT
250 PRINT "HOW MANY HITS";
260 INPUT H(T)
270 IF H(T)+WS(T)>AB(T) THEN PRINT "NUMBER TOO HIGH":GOTO 170
280 CLS
290 NEXT T
300 PRINT "AVERAGE", "PLAYER"
310 PRINT
319 REM *** FIGURE AVERAGES ****
320 FOR T=1 TO P
330 B=H(T)/(AB(T)-WS(T))
339 REM *** ROUND OFF TO THREE PLACES ***
340 A=INT(B*1000+.5)/1000
350 TA=TA+AB(T)
360 TH=TH+H(T)
370 TW=TW+WS(T)
379 REM *** PRINT AVERAGES ***
380 PRINT A,P$(T)
390 NEXT T
400 PRINT
410 TV=TH/(TA-TW)
420 PRINT "TEAM AVERAGE=";INT(TV*1000+.5)/1000
430 PRINT
440 PRINT "PRESS (ENTER) TO RUN AGAIN";
449 REM *** WAIT ROUTINE ***
450 INPUT R$
460 RUN
```

VIC-20

```
1 REM *** TEAM BATTING AVG. VIC-20 ***
10 PRINT CHR$(147)
20 PRINT "TEAM BATTING"
30 PRINT "AVERAGE PROGRAM"
40 PRINT
50 PRINT "PRESS (RETURN) AFTER  EACH REPLY."
60 PRINT
70 PRINT "HOW MANY PLAYERS";
80 INPUT P
89 REM *** DIMENSION ARRAYS ***
90 DIM P$(P),AB(P),WS(P),H(P)
99 REM *** INPUT VARIABLES ***
100 PRINT CHR$(147)
110 PRINT"PLEASE ANSWER"
120 PRINT"THE QUESTION"
130 PRINT
140 PRINT"PRESS (RETURN) AFTER  EACH REPLY."
150 PRINT
160 FOR T=1 TO P
170 PRINT"WHAT'S THE NAME OF"
180 PRINT"PLAYER #"T
190 INPUT P$(T)
200 PRINT
```

```
210 PRINT"WHAT WERE "P$(T)"'S"
220 PRINT"TOTAL AT BATS"
230 INPUT AB(T)
240 PRINT
250 PRINT "HOW MANY WALKS"
260 PRINT "AND SACRIFICES"
270 INPUT WS(T)
280 PRINT
290 PRINT "HOW MANY HITS"
300 INPUT H(T)
310 IF H(T)+WS(T))AB(T) THEN PRINT"NUMBER TOO HIGH":GOTO 210
320 PRINT CHR$(147)
330 NEXT T
340 PRINT "AVERAGE   PLAYER"
350 PRINT
359 REM *** FIGURE AVERAGES ***
360 FOR T=1 TO P
370 B=H(T)/(AB(T)-WS(T))
379 REM *** ROUND OFF TO THREE DIGITS ***
380 A=INT(B*1000+.5)/1000
390 TA=TA+AB(T)
400 TH=TH+H(T)
410 TW=TW+WS(T)
419 REM *** PRINT AVERAGES ***
420 PRINT A,P$(T)
430 NEXT T
440 PRINT
450 TV=TH/(TA-TW)
460 PRINT "TEAM AVERAGE="INT(TV*1000+.5)/1000
470 PRINT
480 PRINT"PRESS (SHIFT) TO"
490 PRINT"TO RUN AGAIN."
499 REM *** WAIT ROUTINE ***
500 WAIT 653,1
510 WAIT 653,1,1
520 RUN
```

BONUS PROGRAM #9

THE DRAWING PROGRAM

The sky is the limit when using THE DRAWING PROGRAM. Drawing on the computer is as easy as pushing the joystick, or pressing direction keys. On some computers you can change character, colors, or backgrounds. To make these choices, press the key printed next to your choice on the screen. Erase by drawing in the color of the background. You'll be surprised at the pictures you can make, with a little practice and patience.

ADAM

```
  1 REM  *** DRAWING  ADAM ***
 10 GOTO 3000
 99 REM  *** joystick routine ***
100 IF j = 0 THEN 200
110 xi = 0: yi = 0: li = 0
120 IF PDL(1) < 10 THEN  yi = -1: GOTO 140
130 IF PDL(1) > 245 THEN  yi = 1
140 IF PDL(3) < 10 THEN  xi = -1: GOTO 160
150 IF PDL(3) > 245 THEN  xi = 1
160 kol = INT(RND(1)*50)
170 RETURN
199 REM  *** read keyboard routine ***
200 xi = 0: yi = 0: li = 0: kol = 0
210 GET ke$
220 IF ke$ = "1" THEN  kol = 1: RETURN
230 IF ke$ = "2" THEN  END
240 IF ke$ = kt$(li) THEN  yi = yt(li): xi = xt(li): RETURN
250 li = li+1: IF li < 8 THEN 240
260 RETURN
499 REM  *** main drawing loop ***
500 IF ro > 39 THEN  ro = 0
510 IF ro < 0 THEN  ro = 39
520 IF co > 39 THEN  co = 0
530 IF co < 0 THEN  co = 39
540 IF kol = 1 THEN  COLOR  = INT(RND(1)*15)+1
550 PLOT co, ro
560 GOSUB 100
570 ro = ro+yi: co = co+xi
580 GOTO 500
2999 REM  *** introduction ***
3000 TEXT: HOME
3010 PRINT "Are you using a joystick?"
3020 GET j$
3030 IF j$ = "Y" OR j$ = "y" THEN  j = 1: HOME: GOTO 3110
3040 j = 0
3050 HOME
3060 PRINT "The direction keys are:"
3070 PRINT
3080 PRINT TAB(2); "u  i  o"
3090 PRINT TAB(2); "j     l"
```

```
3100 PRINT TAB(2); "m  ,  ."
3110 PRINT
3120 PRINT "Press any key to begin."
3130 GET n$
3140 HOME: GR: COLOR  = 1
3150 IF j = 0 THEN  VTAB 22: PRINT "Press '1' to change color"
3160 IF j = 0 THEN  PRINT "Press '2' to end"
3169 REM  *** initialize variables ***
3170 DIM kt$(7), xt(7), yt(7)
3180 FOR i = 0 TO 7: READ kt$(i): NEXT
3190 FOR i = 0 TO 7: READ xt(i): NEXT
3200 FOR i = 0 TO 7: READ yt(i): NEXT
3210 GOTO 500
5000 DATA  ",","."",l,o,i,u,j,m
5010 DATA  0,1,1,1,0,-1,-1,-1
5020 DATA  1,1,0,-1,-1,-1,0,1
```

Apple II and Apple IIe

```
1  REM  *** DRAWING  APPLE ***
10  GOTO 3000
99  REM  *** JOYSTICK ROUTINE ***
100  IF J = 0 THEN 200
110 XI = 0:YI = 0:LI = 0
120  IF  PDL (1) < 64 THEN YI =  - 1: GOTO 140
130  IF  PDL (1) > 192 THEN YI = 1
140  IF  PDL (0) < 64 THEN XI =  - 1: GOTO 210
150  IF  PDL (0) > 192 THEN XI = 1: GOTO 210
199  REM  *** READ KEYBOARD ROUTINE ***
200 XI = 0:YI = 0:LI = 0
210 KE =  PEEK ( - 16384): POKE  - 16368,0
220  IF KE < 128 THEN  RETURN
230  IF KE = 177 THEN KOL = KOL + 1
240  IF KOL > 15 THEN KOL = 0
280  IF  CHR$ (KE - 128) = KT$(LI) THEN YI = YT(LI):XI = XT(LI): RETURN
290 LI = LI + 1: IF LI < 8 THEN 280
300  RETURN
499  REM  *** MAIN DRAWING LOOP ***
500  IF RO > 39 THEN RO = 0
510  IF RO < 0 THEN RO = 39
520  IF CO > 39 THEN CO = 0
530  IF CO < 0 THEN CO = 39
540  COLOR= KOL
550  PLOT CO,RO
560  GOSUB 100
570 RO = RO + YI:CO = CO + XI
580  GOTO 500
2999  REM  *** INTRODUCTION ***
3000  TEXT : HOME
3010  PRINT "  ARE YOU USING A JOYSTICK (Y/N)?"
3020  GET J$
3030  IF J$ = "Y" THEN J = 1: HOME : GOTO 3160
3040  IF J$ = "N" THEN J = 0
3050  HOME
3060  PRINT "THE DIRECTION KEYS ARE:"
3070  PRINT
3080  PRINT  TAB( 6)"U  I  O"
3090  PRINT  TAB( 6)"J     L"
3100  PRINT  TAB( 6)"M  ,  ."
3110  PRINT
```

```
3120  PRINT "PRESS ANY KEY TO BEGIN DRAWING."
3130  GET N$
3150  HOME
3159  REM  *** INITIALIZE VARIABLES ***
3160  DIM KT$(7),XT(7),YT(7)
3170 KOL = 1
3180  FOR I = 0 TO 7: READ KT$(I): NEXT
3190  FOR I = 0 TO 7: READ XT(I): NEXT
3200  FOR I = 0 TO 7: READ YT(I): NEXT
3219  REM  *** SCREEN DISPLAY ***
3220  GR
3230  FOR T = 1 TO 21: PRINT : NEXT T
3240  PRINT "PRESS '1' TO CHANGE COLOR"
3260  GOTO 500
5000  DATA  ",",".",L,0,I,U,J,M
5010  DATA  0,1,1,1,0,-1,-1,-1
5020  DATA  1,1,0,-1,-1,-1,0,1
```

Atari

```
1 REM *** DRAWING ATARI ***
9 REM *** DIMENSION ARRAYS ***
10 DIM R$(1),J$(1),J(8),B(8),XT(8),YT(8)
20 GOTO 3000
99 REM *** JOYSTICK ROUTINE ***
100 IF J=0 THEN 210
110 LI=0:YI=0:XI=0
120 JV=STICK(0)
130 IF JV=J(LI) THEN YI=YT(LI):XI=XT(LI):GOTO 200
140 LI=LI+1
150 IF LI<8 THEN 130
199 REM *** READ KEYBOARD ROUTINE ***
200 XI=0:YI=0:LI=0
210 K=PEEK(764)
220 IF K=255 THEN RETURN
230 IF K=62 THEN 3170
240 IF K=18 THEN KO=KO+1:IF KO>3 THEN KO=0
250 IF K=B(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
260 LI=LI+1
270 IF LI<8 THEN 250
280 RETURN
499 REM *** MAIN DRAWING LOOP ***
500 IF RO>19 THEN RO=0
510 IF RO<0 THEN RO=19
520 IF CO>39 THEN CO=0
530 IF CO<0 THEN CO=39
540 COLOR KO
560 PLOT CO,RO
570 GOSUB 100
580 RO=RO+YI:CO=CO+XI
590 POKE 764,255
600 YI=0:XI=0:LI=0
610 GOTO 500
2999 REM *** INTRODUCTION ***
3000 PRINT CHR$(125)
3010 PRINT "PRESS (RETURN) AFTER YOUR ANSWER."
3020 PRINT
3030 PRINT "ARE YOU USING A JOYSTICK (Y/N)"
3040 INPUT J$
3050 IF J$="Y" OR J$="YES" THEN J=1:PRINT CHR$(125):GOTO 3170
```

```
3060 IF J$="NO" OR J$="N" THEN J=0
3070 PRINT CHR$(125)
3080 PRINT "THE DRAWING KEYS ARE:"
3090 PRINT
3100 PRINT "        U  I  O"
3110 PRINT "        J     L"
3120 PRINT "        M  ,  ."
3130 PRINT
3140 PRINT "PRESS (RETURN) TO BEGIN DRAWING."
3150 INPUT J$
3160 PRINT CHR$(125)
3169 REM *** INITIALIZE VARIABLES ***
3170 RESTORE
3180 KO=2:CO=19:RO=10
3190 GRAPHICS 3:POKE 764,255:POKE 752,2
3199 REM *** INITIALIZE MOTION ARRAYS ***
3200 FOR I=0 TO 7:READ Q:J(I)=Q:NEXT I
3210 FOR I=0 TO 7:READ Q:B(I)=Q:NEXT I
3220 FOR I=0 TO 7:READ Q:XT(I)=Q:NEXT I
3230 FOR I=0 TO 7:READ Q:YT(I)=Q:NEXT I
3239 REM *** SCREEN TEXT ***
3240 PRINT "        PRESS S TO CLEAR SCREEN"
3250 PRINT "        PRESS C TO CHANGE COLORS"
3260 GOTO 500
5000 DATA 10,14,6,11,7,9,13,5
5010 DATA 11,13,8,1,0,37,32,34
5020 DATA -1,0,1,-1,1,-1,0,1
5030 DATA -1,-1,-1,0,0,1,1,1
```

Commodore 64

```
1 REM *** DRAWING 64 ***
10 GOTO 3000
99 REM *** JOYSTICK ROUTINE ***
100 IF J=0 THEN 200
110 XI=0:YI=0:LI=0
120 JV=PEEK(56321)
130 JV=15-(JVAND15)
140 IF JV=JS(LI) THEN YI=YT(LI):XI=XT(LI):GOTO 210
150 LI=LI+1:IF LI( 10 THEN 140
199 REM *** READ KEYBOARD ROUTINE ***
200 XI=0:YI=0:LI=0
210 GET KE$
220 IF KEY$=""THEN RETURN
230 IF KE$=CHR$(133) THEN GOSUB 400
240 IF KE$=CHR$(134) THEN KOL=KOL+1
250 IF KOL)15 THEN KOL=0
260 IF KE$=CHR$(135) THEN BO=BO+1
270 IF BO)15 THEN BO=1
280 IF KE$=CHR$(136) THEN BA=BA+1
290 IF BA)15 THEN BA=1
300 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
310 LI=LI+1:IF LI(8 THEN 300
320 RETURN
399 REM *** CHANGE CHARACTER ***
400 CH=CH+1
410 IF CH=128 THEN CH=27
420 IF CH=161 THEN CH=33
430 IF CH=32 THEN CH=160
440 RETURN
```

```
499 REM *** MAIN DRAWING LOOP ***
500 IF RO>21 THEN RO=0
510 IF RO<0 THEN RO=21
520 IF CO>39 THEN CO=0
530 IF CO<0 THEN CO=39
540 POKE 53280,BO:POKE 53281,BA
550 POKE CB+CO+40*RO,KOL
560 POKE SB+CO+40*RO,CH
570 GOSUB 100
580 RO=RO+YI:CO=CO+XI
590 GOTO 500
2999 REM *** INTRODUCTION ***
3000 PRINT CHR$(147)
3010 PRINT "    ARE YOU USING A JOYSTICK (Y/N)?"
3020 GET J$:IF J$=""THEN 3020
3030 IF J$="Y" THEN J=1:PRINT CHR$(147):GOTO 3160
3040 IF J$="N" THEN J=0
3050 PRINT CHR$(147)
3060 PRINT "THE DIRECTION KEYS ARE:"
3070 PRINT
3080 PRINT TAB(6)"U  I  O"
3090 PRINT TAB(6)"J     L"
3100 PRINT TAB(6)"M  ,  ."
3110 PRINT
3120 PRINT "PRESS (SHIFT) TO BEGIN DRAWING."
3130 WAIT 653,1
3140 WAIT 653,1,1
3150 PRINT CHR$(147)
3159 REM *** INITIALIZE VARIABLES ***
3160 SB=1024:CB=55296:CO=19:RO=10
3170 BA=12:BO=9:CH=160:POKE 650,128
3180 FOR I=0 TO 7:READ KT$(I):NEXT
3190 FOR I=0 TO 7:READ XT(I):NEXT
3200 FOR I=0 TO 7:READ YT(I):NEXT
3210 FOR I=0 TO 7:READ JS(I):NEXT
3219 REM *** LE SCREEN DISPLAY ***
3220 PRINT CHR$(19)CHR$(144)
3230 FOR T=1 TO 21:PRINT:NEXT T
3240 PRINT "F1 CHARACTER      F3 CHARACTER COLOR"
3250 PRINT "F5 BORDER COLOR   F7 BACKGROUND COLOR"
3260 GOTO 500
5000 DATA ",",".",L,O,I,U,J,M
5010 DATA 0,1,1,1,0,-1,-1,-1
5020 DATA 1,1,0,-1,-1,-1,0,1
5030 DATA 2,10,8,9,1,5,4,6
```

IBM PC

```
10 REM *** DRAWING PROGRAM IBM-PC ***
20 REM *** DIMENSION CODE ARRAYS ***
30 KEY OFF
40 GOTO 300
50 LI=0:XI=0:YI=0
60 KE$=INKEY$
70 IF KE$="" THEN RETURN
80 IF KE$="S" THEN CLS:GOTO 470
90 IF KE$="C" THEN GOSUB 140
100 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
110 LI=LI+1:IF LI<8 THEN 100
120 RETURN
```

```
130 REM *** CHANGE CHARACTER ***
140 CH=CH+1
150 IF CH>223 THEN CH=169
160 IF CH=171 THEN CH=32
170 IF CH=33 THEN CH=173
180 RETURN
190 REM *** MAIN DRAWING LOOP ***
200 IF RO>23 THEN RO=1
210 IF RO<1 THEN RO=23
220 IF CO<1 THEN CO=79
230 IF CO>79 THEN CO=1
240 LOCATE RO,CO,0
250 PRINT CHR$(CH);
260 GOSUB 50
270 RO=RO+YI:CO=CO+XI
280 GOTO 200
290 REM *** INTRODUCTION ***
300 SCREEN 0,0,0:WIDTH 80
310 CLS
320 PRINT "THE DRAWING KEYS ARE:"
330 PRINT
340 PRINT TAB(8);"U  I  O"
350 PRINT TAB(8);"J     L"
360 PRINT TAB(8);"M  ,  ."
370 PRINT
380 PRINT "PRESS <ENTER> TO BEGIN."
390 R$=INKEY$:IF R$<>CHR$(13) THEN 390
400 CLS
410 CH=219:CO=40:RO=12
420 REM *** INITIALIZE DIRECTION ARRAYS ***
430 FOR I=0 TO 7:READ KT$(I):NEXT I
440 FOR I=0 TO 7:READ XT(I):NEXT I
450 FOR I=0 TO 7:READ YT(I):NEXT I
460 REM *** SCREEN DISPLAY ***
470 LOCATE 24,27
480 PRINT "PRESS C TO CHANGE CHARACTER";
490 LOCATE 25,27
500 PRINT "PRESS S TO CLEAR SCREEN";
510 GOTO 200
1000 DATA ",",".",L,O,I,U,J,M
1010 DATA 0,1,1,1,0,-1,-1,-1
1020 DATA 1,1,0,-1,-1,-1,0,1
```

TI-99/4A

```
1 REM *** DRAWING TI99/4A ***
10 GOTO 540
19 REM *** JOYSTICK ROUTINE ***
20 IF J=0 THEN 140
30 CALL JOYST(1,M,N)
40 XI=0
50 YI=0
60 LI=0
70 IF M=JI(LI)THEN 80 ELSE 120
80 IF N=KI(LI)THEN 90 ELSE 120
90 XI=XT(LI)
100 YI=XY(LI)
110 GOTO 170
120 LI=LI+1
130 IF LI<8 THEN 70
```

```
140 XI=0
150 YI=0
160 LI=0
169 REM *** READ KEYBOARD ***
170 CALL KEY(3,K,P)
180 IF P=0 THEN 190 ELSE 200
190 IF J=0 THEN 170
200 IF K=49 THEN 210 ELSE 250
210 KO=KO+1
220 IF KO>6 THEN 230 ELSE 240
230 KO=1
240 CH=C(KO)
250 IF K=50 THEN 260 ELSE 290
260 S=S+1
270 IF S>16 THEN 280 ELSE 290
280 S=3
290 IF K=51 THEN 990 ELSE 300
300 IF K=B(LI)THEN 310 ELSE 340
310 XI=XT(LI)
320 YI=XY(LI)
330 RETURN
340 LI=LI+1
350 IF J=1 THEN 390
360 IF LI<8 THEN 300
370 XI=0
380 YI=0
390 RETURN
399 REM *** SET DIMENSIONS ***
400 IF RO>20 THEN 410 ELSE 420
410 RO=1
420 IF RO<1 THEN 430 ELSE 440
430 RO=20
440 IF CO>32 THEN 450 ELSE 460
450 CO=1
460 IF CO<1 THEN 470 ELSE 480
470 CO=32
480 CALL SCREEN(S)
490 CALL HCHAR(RO,CO,CH,1)
500 GOSUB 20
510 RO=RO+XI
520 CO=CO+YI
530 GOTO 400
539 REM *** INTRODUCTION ***
540 CALL CLEAR
550 PRINT "TYPE YOUR ANSWER"
560 PRINT "THEN PRESS (ENTER)."
570 PRINT
580 PRINT "ARE YOU USING A JOYSTICK";
590 INPUT J$
600 IF SEG$(J$,1,1)="Y" THEN 610 ELSE 630
610 J=1
620 GOTO 700
630 J=0
640 CALL CLEAR
650 PRINT "THE DIRECTION KEYS ARE:"
660 PRINT
670 PRINT TAB(8);"U  I  O"
680 PRINT TAB(8);"J     L"
690 PRINT TAB(8);"M  ,  ."
```

```
700 PRINT
710 PRINT "PRESS (ENTER) TO BEGIN."
720 INPUT R$
730 RESTORE
739 REM *** DEFINE CHARACTERS ***
740 A$="FFFFFFFFFFFFFFFF"
750 CALL CHAR(96,A$)
760 CALL CHAR(104,A$)
770 CALL CHAR(128,A$)
780 CALL CHAR(136,A$)
790 CALL CHAR(144,A$)
800 CALL CHAR(152,A$)
810 CALL COLOR(9,2,2)
820 CALL COLOR(10,3,3)
830 CALL COLOR(13,5,5)
840 CALL COLOR(14,7,7)
850 CALL COLOR(15,11,11)
860 CALL COLOR(16,16,16)
870 CO=16
880 RO=10
890 CH=96
900 S=3
909 REM *** LOAD JOYSTICK AND KEYBOARD ARRAYS ***
910 FOR I=0 TO 7
920 READ XT(I)
930 READ XY(I)
940 READ JI(I)
950 READ KI(I)
960 READ B(I)
970 READ C(I)
980 NEXT I
989 REM *** SCREEN DISPLAY ***
990 CALL CLEAR
1000 PRINT "1 TO CHANGE PAINT COLOR"
1010 PRINT "2 TO CHANGE SCREEN COLOR"
1020 PRINT "3 TO CLEAR SCREEN"
1030 RO=10
1040 CO=16
1050 GOTO 400
1060 DATA -1,0,0,4,73,0
1070 DATA -1,1,4,4,79,96
1080 DATA 0,1,4,0,76,104
1090 DATA 1,1,4,-4,46,128
1100 DATA 1,0,0,-4,44,136
1110 DATA 1,-1,-4,-4,77,144
1120 DATA 0,-1,-4,0,74,152
1130 DATA -1,-1,-4,4,85,0
```

Timex 1000 and 1500

```
 1 REM *** DRAWING TIMEX ***
10 CLS
20 PRINT "THE DRAWING KEYS ARE:"
30 PRINT
40 PRINT "5=LEFT 6=DOWN 7=UP 8=RIGHT"
50 PRINT
60 PRINT "PRESS <ENTER> TO BEGIN."
70 LET K$=INKEY$
80 IF K$="" THEN GOTO 70
90 CLS
```

```
 99 REM *** INITIALIZE VARIABLES ***
100 LET RO=11
110 LET CO=15
120 LET CH=128
129 REM *** SCREEN DISPLAY ***
130 PRINT AT 20,3;"PRESS C TO CHANGE CHARACTER"
140 PRINT AT 21,3;"PRESS S TO CLEAR SCREEN"
150 GOTO 500
199 REM *** READ KEYBOARD ***
200 LET K$=INKEY$
210 IF K$="" THEN GOTO 200
220 IF K$="S" THEN GOTO 90
230 IF K$="C" THEN GOTO 400
240 IF K$="5" THEN LET CO=CO-1
250 IF K$="6" THEN LET RO=RO+1
260 IF K$="7" THEN LET RO=RO-1
270 IF K$="8" THEN LET CO=CO+1
280 RETURN
399 REM *** CHANGE CHARACTER ***
400 LET CH=CH+1
410 IF CH=139 THEN LET CH=0
420 IF CH=1 THEN LET CH=128
430 RETURN
499 REM *** DRAWING LOOP ***
500 IF CO>31 THEN LET CO=0
510 IF CO<0 THEN LET CO=31
520 IF RO>19 THEN LET RO=0
530 IF RO<0 THEN LET RO=19
540 PRINT AT RO,CO;CHR$ (CH)
550 GOSUB 200
560 GOTO 500
```

TRS-80 Color Computer

```
1 REM *** DRAWING TRS-80 COLOR ***
10 GOTO 1000
99 REM *** LE JOYSTICK ROUTINE ***
100 H=JOYSTK(0)
110 V=JOYSTK(1)
120 IF H<15 THEN CO=CO-1:RETURN
130 IF H>45 THEN CO=CO+1:RETURN
140 IF V<15 THEN CO=CO-32:RETURN
150 IF V>45 THEN CO=CO+32:RETURN
199 REM *** LE KEYBOARD ROUTINE ***
200 LI=0
210 KE$=INKEY$:IF KE$="" THEN RETURN
220 IF KE$="C" THEN KO=KO+1
230 IF KO>8 THEN KO=1
240 IF KE$="Z" THEN GOSUB 400
250 IF KE$="@" THEN CLS(RND(8)-1):GOTO 1180
260 IF KE$=KT$(LI) THEN CO=CO+YT(LI):RETURN
270 LI=LI+1
280 IF LI<8 THEN 260
290 GOTO 200
399 REM *** CHARACTER CHANGE ***
400 CH=CH+1
410 IF CH>15 THEN CH=0
420 RETURN
499 REM *** MAIN DRAWING LOOP ***
500 IF CO>383 THEN CO=CO-32*13
```

```
510 IF CO<0 THEN CO=CO+32*13
520 SC=128+16*(KO-1)+CH
530 PRINT@CO,CHR$(SC);
540 ON J GOSUB 100,200
550 IF J<>1 THEN 580
560 FOR D=1 TO 50
570 NEXT D
580 GOTO 500
999 REM *** INTRODUCTION ***
1000 CLS
1010 PRINT "ARE YOU USING A JOYSTICK (Y/N)?"
1020 J$=INKEY$:IF J$="" THEN 1020
1030 IF J$="Y" THEN J=1:GOTO 1140
1040 IF J$<> "Y" THEN J=2
1050 CLS
1060 PRINT "THE DIRECTION KEYS ARE:"
1070 PRINT
1080 PRINT "U  I  O"
1090 PRINT "J     L"
1100 PRINT "M  ,  ."
1110 PRINT
1120 PRINT "PRESS (ENTER) TO BEGIN."
1130 INPUT R$
1139 REM *** INITIALIZE VARIABLES ***
1140 CLS(0)
1150 CO=239:CH=15:KO=3
1160 FOR I=0 TO 7:READ KT$(I):NEXT
1170 FOR I=0 TO 7:READ YT(I):NEXT
1179 REM *** SCREEN DISPLAY ***
1180 PRINT@423,"C=CHANGE COLOR";
1190 PRINT@455,"Z=CHANGE CHARACTER";
1200 PRINT@487,"@=CLEAR SCREEN";
1210 GOTO 500
2000 DATA ",",".",L,O,I,U,J,M
2010 DATA 32,33,1,-31,-32.-33,-1,31
```

TRS-80 Model III and Model 4

```
1 REM *** DRAWING TRS-80 MODELS 3 AND 4 CASS. AND MODEL 3 DISK BASIC **
10 GOTO 1000
199 REM *** KEYBOARD ROUTINE ***
200 LI=0
210 KE$=INKEY$:IF KE$="" THEN RETURN
240 IF KE$="Z" THEN GOSUB 400
250 IF KE$="@" THEN CLS:GOTO 1170
260 IF KE$=KT$(LI) THEN CO=CO+YT(LI):RETURN
270 LI=LI+1
280 IF LI<8 THEN 260
290 RETURN
399 REM *** CHARACTER CHANGE ***
400 CH=CH+1
410 IF CH>255 THEN CH=129
430 RETURN
499 REM *** MAIN DRAWING LOOP ***
500 IF CO>832 THEN CO=CO-64*14
510 IF CO<0 THEN CO=CO+64*14
530 PRINT@CO,CHR$(CH);
540 GOSUB 200
560 FOR D=1 TO 50
570 NEXT D
```

```
580 GOTO 500
999 REM *** INTRODUCTION ***
1000 CLS
1060 PRINT "THE DIRECTION KEYS ARE:"
1070 PRINT
1080 PRINT TAB(8);"U  I  O"
1090 PRINT TAB(8);"J     L"
1100 PRINT TAB(8);"M  ,  ."
1110 PRINT
1120 PRINT "PRESS (ENTER) TO BEGIN.";
1130 INPUT R$
1140 CLS
1149 REM *** INITIALIZE VARIABLES AND ARRAYS ***
1150 FOR I=0 TO 7:READ KT$(I):NEXT I
1160 FOR I=0 TO 7:READ YT(I):NEXT I
1170 CO=478:CH=191
1180 PRINT@965,"Z=CHANGE CHARACTER";
1190 PRINT@1000,"@=CLEAR SCREEN";
1200 POKE 16526,105
1210 POKE 16527,0
1220 PRINT CHR$(21)
1230 GOTO 500
2000 DATA ",",".",L,O,I,U,J,M
2010 DATA 64,65,1,-63,-64,-65,-1,63
```

VIC-20

```
1 REM *** DRAWING VIC-20 ***
10 GOTO 3000
99 REM *** JOYSTICK ROUTINE ***
100 IF J=0 THEN 200
110 POKE 37154,127
120 XT%=PEEK(37152)AND 128
130 POKE 37154,255
140 XT%=XT% OR (PEEK(37137)AND127)
150 XI=SGN(XT%AND128)-SGN(XT%AND16)
160 YI=SGN(XT%AND8)-SGN(XT%AND4)
170 GOTO 210
199 REM *** READ KEYBOARD ROUTINE ***
200 XI=0:YI=0:LI=0
210 GET KE$
220 IF KEY$=""THEN RETURN
230 IF KE$=CHR$(133) THEN GOSUB 400
240 IF KE$=CHR$(134) THEN KOL=KOL+1
250 IF KOL)8 THEN KOL=0
260 IF KE$=CHR$(135) THEN BA=BA+16
270 IF BA)125 THEN BA=13
280 IF J=1 THEN RETURN
290 IF KE$=KT$(LI) THEN YI=YT(LI):XI=XT(LI):RETURN
300 LI=LI+1:IF LI(8 THEN 290
310 RETURN
399 REM *** CHANGE CHARACTER ***
400 CH=CH+1
410 IF CH=128 THEN CH=27
420 IF CH=161 THEN CH=33
430 IF CH=32 THEN CH=160
440 RETURN
499 REM *** MAIN DRAWING LOOP ***
500 IF RO)18 THEN RO=0
510 IF RO(0 THEN RO=18
```

```
520 IF CO)22 THEN CO=0
530 IF CO(0 THEN CO=22
540 POKE 36879,BA
550 POKE CB+CO+22*RO,KOL
560 POKE SB+CO+22*RO,CH
570 GOSUB 100
580 RO=RO-YI:CO=CO-XI
590 GOTO 500
2999 REM *** INTRODUCTION ***
3000 PRINT CHR$(147)
3010 PRINT "USING A JOYSTICK (Y/N)"
3020 GET J$:IF J$=""THEN 3020
3030 IF J$="Y" THEN J=1:PRINT CHR$(147):GOTO 3160
3040 IF J$="N" THEN J=0
3050 PRINT CHR$(147)
3060 PRINT "THE DIRECTION KEYS ARE"
3070 PRINT
3080 PRINT TAB(8)"U  I  O"
3090 PRINT TAB(8)"J     L"
3100 PRINT TAB(8)"M  ,  ."
3110 PRINT
3120 PRINT "PRESS (SHIFT) TO BEGIN"
3130 WAIT 653,1
3140 WAIT 653,1,1
3150 PRINT CHR$(147)
3159 REM *** INITIALIZE VARIABLES ***
3160 SB=7680:CB=38400:CO=11:RO=10
3170 BA=29:CH=160:POKE 650,128
3180 FOR I=0 TO 7:READ KT$(I):NEXT
3190 FOR I=0 TO 7:READ XT(I):NEXT
3200 FOR I=0 TO 7:READ YT(I):NEXT
3209 REM *** SCREEN DISPLAY ***
3210 PRINT CHR$(144)CHR$(19)
3220 FOR T=1 TO 22:PRINT:NEXT T
3230 PRINT "F1 CHANGE CHARACTER"
3240 PRINT "F3 CHARACTER COLOR
3250 PRINT "F5 BACKGROUND COLOR"
3260 GOTO 500
4000 RETURN
5000 DATA I,U,J,M,",",".",L,O
5010 DATA 0,1,1,1,0,-1,-1,-1
5020 DATA 1,1,0,-1,-1,-1,0,1
```

BONUS PROGRAM #10

MUSIC RECORDER

The MUSIC RECORDER changes your computer into a computer tape recorder. By pressing the computer keys pictured under notes on the screen, you make up songs. When you're ready to record, press the key pictured next to START RECORDING, enter the notes of the song, then press the key next to PLAY BACK SONG, to hear the tune. When you're tired of hearing a tune, press the key pictured next to ERASE SONG MEMORY to get rid of the song. Up to 100 notes can stored at one time in the recorder. If the number exceeds 100, the note memory is erased and set at one again.

Apple II and Apple IIe

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1  REM  *** MUSIC RECORDER  APPLE ***
10  GOTO 600
19  REM  *** PLAY NOTE ROUTINE ***
20  POKE 6,LD(T)
30  POKE 7,HD(T)
40  POKE 8,F(T)
50  CALL SOU
60  IF F <  > 1 THEN  RETURN
70  IF C > 99 THEN 400
80 NH(C) = T
90 C = C + 1
100  RETURN
199  REM  *** RECORD NOTE ROUTINE ***
200 F = 0
210  FOR B = 1 TO C - 1
220 T = NH(B)
230  GOSUB 20
240  NEXT B
299  REM  *** READ KEYBOARD ROUTINE ***
300 T = 17
310  GET N$
320  IF N$ = KB$(T) THEN  GOSUB 20
330 T = T - 1
340  IF T >  - 1 THEN 320
350  IF N$ = "B" THEN F = 1
360  IF N$ = "S" THEN 200
370  IF N$ = "X" THEN 400
380  GOTO 300
399  REM  *** ERASE NOTE ROUTINE ***
400  FOR X = 0 TO 100
410 NH(X) = 0
420  NEXT X
430 C = 1
440  GOTO 300
599  REM  *** INITIALIZE VARIABLES ***
600  HOME :SOU = 768
610 X = 17:C = 1
620  DIM HD(X),LD(X),F(X)
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630  DIM KB$(X),NH(105)
640  FOR X = 0 TO 17
650  READ F(X),HD(X),LD(X)
660  READ KB$(X)
670  NEXT X
679  REM  *** SCREEN DISPLAY ***
680  FOR CO = 7 TO 16 STEP 2
690  FOR RO = 2 TO 19
700 C1 = 11:C2 = 16: GOSUB 740
710 C1 = 16:C2 = 23: GOSUB 740
720 C1 = 23:C2 = 28: GOSUB 740
730 C1 = 28:C2 = 29: GOSUB 740: GOTO 800
740  FOR CO = C1 TO C2 STEP 2
750  FOR RO = 2 TO 13
760  HTAB CO: VTAB RO
770  INVERSE : PRINT " ";
780  NORMAL : PRINT " ";
790  NEXT RO: NEXT CO: RETURN
800  PRINT : HTAB 11: INVERSE : PRINT  SPC( 18)
810  NORMAL : HTAB 11: VTAB 1
820  PRINT "C#D#EF#G#A#BC#D#EF"
830  VTAB 15
840  PRINT  TAB( 11)"Q2W3ER5T6Y7UI9OOP["
850  PRINT
860  PRINT  TAB( 9)"'B' TO BEGIN RECORDING"
870  PRINT
880  PRINT  TAB( 9)"'S' TO PLAY BACK SONG"
890  PRINT
900  PRINT  TAB( 9)"'X' TO ERASE SONG MEMORY"
909  REM  *** POKE SOUND ROUTINE ***
910  FOR X = SOU TO SOU + 22
920  READ A
930  POKE X,A
940  NEXT X
950  GOTO 300
1000  DATA  174,0,238,0,162,0,244,2,155,0,252,W,145,1,4,3,138,1,15,E
1010  DATA  130,1,27,R,123,1,40,5,116,1,55,T,108,1,72,6,103,1,90,Y
1020  DATA  96,1,110,7,92,1,130,U,87,1,155,I,81,1,180,9,77,1,200,O
1030  DATA  72,1,225,0,68,1,252,P,65,2,30,[
1040  DATA  230,7,166,6,164,8,173,48,192,234
1050  DATA  234,234,136,208,250,202,208,242
1060  DATA  198,7,208,238,96
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Atari

```
1 REM *** MUSIC RECORDER ATARI ***
10 GOTO 600
99 REM *** PLAY NOTE ROUTINE ***
100 IF NV(T)=0 THEN 300
110 COLOR 1:PLOT T,7
120 IF F=1 THEN D=50:IF F<>1 THEN D=0
130 SOUND 0,NV(T),14,15
140 FOR DUR=1 TO D+50:NEXT DUR
150 SOUND 0,0,0,0:COLOR 0
160 PLOT T,7
170 IF F<>1 THEN POKE 764,255:RETURN
180 IF C>99 THEN 400
190 NH(C)=T:C=C+1:RETURN
199 REM *** RECORD NOTE ROUTINE ***
200 F=0
```

```
210 FOR B=1 TO C-1
220 T=NH(B)
230 GOSUB 100
240 NEXT B
299 REM *** READ KEYBOARD ROUTINE ***
300 T=28
310 K=PEEK(764)
320 IF K=255 THEN 310
330 IF K=B(T) THEN GOSUB 100
340 T=T-1
350 IF T>=9 THEN 320
360 IF K=33 THEN F=1
370 IF K=23 THEN 200
380 IF K=22 THEN 400
390 POKE 764,255:GOTO 300
400 FOR X=0 TO 100
410 NH(X)=0
420 NEXT X
430 C=1
440 GOTO 300
599 REM *** INITIALIZE VARIABLES ***
600 X=29:C=1
609 REM *** DIMENSION ARRAYS ***
610 DIM NV(X),B(X),NH(100)
620 POKE 752,2
630 GRAPHICS 3
640 PRINT CHR$(125)
650 FOR X=11 TO 28
660 READ Q:NV(X)=Q:READ Q:B(X)=Q
670 NEXT X
679 REM
680 FOR CO=11 TO 28
690 READ RO,KO
700 COLOR KO
710 PLOT CO,8
720 DRAWTO CO,RO
730 NEXT CO
740 PRINT "          Q2W3ER5T6Y7UI9OOP-"
750 PRINT "SPACE BAR TO BEGIN RECORDING"
760 PRINT "PRESS Z TO PLAYBACK SONG"
770 POKE 752,2
780 PRINT "PRESS X TO ERASE SONG MEMORY";
790 GOTO 300
1000 DATA 121,47,114,30,108,46,102,26,96,42,91,40,85,29,81,45
1010 DATA 76,27,72,43,68,51,64,11,60,13,57,48,53,8,50,50,47,10,45,14
1020 DATA 17,1,15,2,17,3,15,2,17,1,17,3,15,2,17,1,15,2,17,3,15,2,17,1
1030 DATA 17,3,15,2,17,1,15,2,17,3,17,1
```

Commodore 64

```
1 REM *** MUSIC RECORDER 64 ***
10 GOTO 600
19 REM *** PLAY NOTE ROUTINE ***
20 POKE CB+T+9+40*1,1
30 POKE SOU+24,15
40 POKE SOU+5,64
50 POKE SOU+6,64
60 POKE SOU+4,33
70 POKE SOU+1,HF(T)
80 POKE SOU,LF(T)
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90 FOR DUR=1 TO 75
100 NEXT DUR
110 POKE CB+T+9+40*1,0
120 IF F<>1 THEN RETURN
130 POKE S+24,0
140 POKE SOU,0
150 POKE SOU+1,0
160 IF C>99 THEN 400
170 NH(C)=T
180 C=C+1
190 RETURN
199 REM *** RECORD NOTE ROUTINE ***
200 F=0
210 FOR B=1 TO C-1
220 T=NH(B)
230 GOSUB 20
240 NEXT B
299 REM *** READ KEYBOARD ROUTINE ***
300 T=19:POKE S+24,0:POKE SOU,0:POKE SOU+1,0
310 GET N$:IF N$=""THEN 300
320 IF N$=KB$(T) THEN GOSUB 20
330 T=T-1
340 IF T>1 THEN 320
350 IF N$=CHR$(133) THEN F=1
360 IF N$=CHR$(134) THEN 200
370 IF N$=CHR$(135) THEN 400
380 IF N$=CHR$(136) THEN 500
390 GOTO 300
399 REM *** ERASE NOTE ROUTINE ***
400 FOR X=0 TO 100
410 NH(X)=0
420 NEXT X
430 C=1
440 GOTO 300
499 REM *** CHANGE SCREEN COLOR ***
500 S=S+1
510 IF S=19 THEN S=2
520 POKE SC,SC(S)
530 POKE BC,BC(S)
540 GOTO 300
599 REM *** INITIALIZE VARIABLES ***
600 CB=55296:SB=1024:SOU=54272
610 X=22:C=1:S=2:SC=53281:BC=53280
619 REM *** DIMINSION ARRAYS ***
620 DIM HF(X),LF(X),C(X),Y(X),SC(X)
630 DIM KB$(X),BC(X),NH(105)
639 REM *** SCREEN DISPLAY ***
640 PRINT CHR$(147)
650 POKE SC,12:POKE BC,11
660 FOR X=2 TO 19
670 READ HF(X),LF(X),C(X),Y(X)
680 READ KB$(X),SC(X),BC(X)
690 NEXT X
700 FOR CO=2 TO 19
710 FOR RO=3 TO Y(CO)+1
720 POKE CB+CO+9+40*RO,C(CO)
730 POKE SB+CO+9+40*RO,160
740 NEXT RO
750 NEXT CO
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```
800 PRINT CHR$(19)CHR$(144)
810 PRINT
820 PRINT TAB(11)"C#D#EF#G#A#BC#D#EF"
830 FOR X=1 TO 12
840 PRINT
850 NEXT X
860 PRINTTAB(11)"W3E4RT6Y7U8I00P+@*"
870 PRINT
880 PRINT
890 PRINTTAB(9)"F1 TO BEGIN RECORDING"
900 PRINT
910 PRINTTAB(9)"F3 TO PLAY BACK SONG"
920 PRINT
930 PRINTTAB(9)"F5 TO ERASE SONG MEMORY"
940 PRINT
950 PRINTTAB(9)"F7 TO CHANGE SCREEN COLORS"
960 GOTO 300
1000 DATA 16,195,1,13,W,15,13,17,195,0,11,3,9,11
1010 DATA 18,209,8,13,E,11,12,19,239,0,11,4,11,13
1020 DATA 21,31,2,13,R,10,15,22,96,5,13,T,11,15
1030 DATA 23,181,0,11,6,9,11,25,30,6,13,Y,15,9
1040 DATA 26,156,0,11,7,9,14,28,49,4,13,U,14,11
1050 DATA 29,223,0,11,8,12,15,31,165,3,13,I,10,10
1060 DATA 33,135,1,13,O,9,13,35,134,0,11,0,10,12
1070 DATA 37,162,8,13,P,12,14,39,223,0,11,+,11,15
1080 DATA 42,62,2,13,@,9,15,44,193,5,13,*,14,11
```

IBM PC

```
1 REM *** MUSIC RECORDER IBM-PC ***
10 KEY OFF
20 GOTO 600
99 REM *** PLAY NOTE ROUTINE ***
100 IF NV(I)=0 THEN 300
110 LOCATE 4,I:PRINT CHR$(2);
120 FOR DELAY=1 TO 10:NEXT DELAY
130 SOUND NV(I),5
140 LOCATE 4,I
150 PRINT CHR$(32);
160 IF F<>1 THEN RETURN
170 IF C>99 THEN 400
179 REM *** RECPRD NOTE ***
180 NH(C)=I
190 C=C+1:RETURN
200 F=0
210 FOR B=1 TO C-1
220 I=NH(B)
230 GOSUB 100
240 NEXT B
299 REM *** READ KEYBOARD ROUTINE ***
300 I=48
310 N$=INKEY$:IF N$="" THEN 300
320 IF N$=KB$(I) THEN GOSUB 100
330 I=I-1
340 IF I>30 THEN 320
350 IF N$=CHR$(32) THEN F=1
360 IF N$="Z" THEN 200
370 IF N$="X" THEN 400
380 GOTO 300
399 REM *** ERASE NOTES ROUTINE ***
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```
400 FOR X=0 TO 100
410 NH(X)=0
420 NEXT X
430 C=1
440 GOTO 300
599 REM *** INITIALIZE VARIABLES ***
600 X=49:C=1:SCREEN 0,0,0:WIDTH 80
610 DIM NV(X),KB$(X),NH(100)
620 CLS
629 REM *** LOAD NOTE AND KEYBOARD ARRAYS ***
630 FOR X=31 TO 48
640 READ NV(X),KB$(X)
650 NEXT X
659 REM *** SCREEN DISPLAY ***
660 FOR CO=31 TO 48
670 READ Y,CH
680 FOR RO=5 TO Y
690 LOCATE RO,CO,0
700 PRINT CHR$(CH);
710 NEXT RO
720 NEXT CO
730 LOCATE 5,31
740 PRINT "C#D#EF#G#A#BC#D#EF";
750 LOCATE 19,31
760 PRINT "Q2W3ER5T6Y7UI9OOP[";
770 LOCATE 21,26
780 PRINT "SPACE BAR TO BEGIN RECORD
790 LOCATE 23,26
800 PRINT "PRESS Z TO PLAYBACK SONG";
810 LOCATE 25,26
820 PRINT "PRESS X TO ERASE SONG MEMORY";
830 GOTO 300
1000 DATA 262,Q,277,2,294,W,311,3,330,E,349,R
1010 DATA 370,5,392,T,415,6,440,Y,466,7,494,U,523,I
1020 DATA 554,9,587,O,622,O,659,P,698,[
1030 DATA 17,178,14,219,17,176,14,219,17,178,17,176
1040 DATA 14,219,17,178,14,219,17,176,14,219,17,178
1050 DATA 17,176,14,219,17,178,14,219,17,176,17,178
```

TI-99/4A

```
1 REM  *** MUSIC RECORDER TI99/4A ***
9 REM  *** DIMENSION NOTE ARRAYS ***
10 DIM H(100),Q(26),V(26),R(26),CH(175)
20 GOTO 350
29 REM  *** PLAY NOTE ROUTINE ***
30 IF V(T)=0 THEN 180
40 CALL HCHAR(3,T,88)
50 CALL SOUND(100,V(T),0)
60 CALL HCHAR(3,T,33)
69 REM  *** RECORD NOTE ***
70 IF F<>1 THEN 80 ELSE 90
80 RETURN
90 IF C>99 THEN 300
100 H(C)=T
110 C=C+1
120 RETURN
130 F=0
140 FOR B=1 TO C-1
150 T=H(B)
```

```
160 GOSUB 30
170 NEXT B
180 T=25
189 REM  *** READ KEYBOARD ***
190 CALL KEY(3,K,P)
200 IF P=0 THEN 190
210 IF K=Q(T)THEN 220 ELSE 230
220 GOSUB 30
230 T=T-1
240 IF T>6 THEN 200
250 IF K=32 THEN 260 ELSE 270
260 F=1
270 IF K=83 THEN 130
280 IF K=68 THEN 300
290 GOTO 180
299 REM  *** ERASE NOTES ***
300 FOR X=0 TO 100
310 H(X)=0
320 NEXT X
330 C=1
340 GOTO 180
349 REM  *** DEFINE CHARACTERS ***
350 A$="FFFFFFFFFFFFFFFF"
360 CALL CLEAR
370 B$="2424FF2424FF2424"
380 C$="00C3241810101010"
390 X=26
400 C=1
410 CALL CHAR(88,A$)
420 CALL CHAR(33,A$)
430 FOR X=8 TO 25
439 REM  *** LOAD ARRAYS ***
440 READ V(X),Q(X),CH(X),R(X)
450 CALL CHAR(CH(X),A$)
460 NEXT X
470 CALL CHAR(96,B$)
480 CALL CHAR(42,C$)
490 FOR X=8 TO 16
500 READ F,B
510 CALL COLOR(X,F,B)
520 NEXT X
530 CALL COLOR(1,3,3)
539 REM  *** SCREEN DISPLAY ***
540 CALL CLEAR
550 PRINT TAB(6);"C#D#EF#G#A#BC#D#EF"
560 FOR X=1 TO 13
570 PRINT
580 NEXT X
590 PRINT TAB(6);"Q2W3ER5T6Y7U190OP["
600 PRINT
610 PRINT
620 PRINT "  PRESS SPACEBAR TO RECORD"
630 PRINT
640 PRINT "  PRESS S TO PLAY BACK SONG"
650 PRINT
660 PRINT "  PRESS O TO ERASE SONG"
670 FOR X=8 TO 25
680 CALL VCHAR(4,X,CH(X),R(X))
690 NEXT X
```

```
700 GOTO 180
710 DATA 262,81,104,11,277,50,97,9,294,87,112,11
720 DATA 311,51,97,9,330,69,120,11
730 DATA 349,82,128,11,370,53,97,9,392,84,136,11
740 DATA 415,54,97,9,440,89,144,11,466,55,97,9
750 DATA 494,85,152,11,523,73,104,11,554,57,97,9
760 DATA 587,79,112,11,622,48,97,9,659,80,120,11
770 DATA 698,47,128,11
780 DATA 16,16,2,1,5,5,7,7,8,8,11,11,14,14,15,15,10,10
```

TRS-80 Color Computer

```
1 REM *** MUSIC RECORDER TRS-80 COLOR ***
10 GOTO 600
99 REM *** PLAY NOTE ROUTINE ***
100 IF NV(T)=0 THEN 300
110 PRINT @T,CHR$(143+16);
120 SOUND NV(T),3
130 PRINT @ T,CHR$(143);
140 PRINT @ T,CV$(T);
150 IF F<>1 THEN RETURN
160 IF C>99 THEN 400
170 NH(C)=T
180 C=C+1
190 RETURN
199 REM *** RECORD NOTE ROUTINE ***
200 F=0
210 FOR B=1 TO C-1
220 T=NH(B)
230 GOSUB 100
240 NEXT B
299 REM *** READ KEYBOARD ROUTINE ***
300 T=24
310 N$=INKEY$:IF N$=""THEN 300
320 IF N$=KB$(T) THEN GOSUB 100
330 T=T-1
340 IF T>5 THEN 320
350 IF N$=CHR$(32) THEN F=1
360 IF N$="Z" THEN 200
370 IF N$="X" THEN 400
380 GOTO 300
399 REM *** ERASE NOTE ROUTINE ***
400 FOR X=0 TO 100
410 NH(X)=0
420 NEXT X
430 C=1
440 GOTO 300
599 REM *** INITIALIZE VARIABLES ***
600 X=25:C=1
609 REM *** DIMENSION ARRAYS ***
610 DIM CV$(X),KB$(X),NH(100),NV(X)
620 CLS
630 FOR X=7 TO 24
640 READ NV(X),CV$(X),KB$(X)
650 NEXT X
699 REM *** SCREEN DISPLAY ***
700 FOR CO=7 TO 24
710 PRINT @CO,CV$(CO);
720 PRINT @CO+224,KB$(CO);
730 NEXT CO
```

```
740 READ X,Y,KO
750 IF KO=0 THEN A=128
760 IF KO<>0 THEN A=143
770 IF X=-1 THEN 820
780 FOR RO=X TO Y STEP 32
790 PRINT@RO,CHR$(A+KO);
800 NEXT RO
810 GOTO 740
820 PRINT@321,"SPACE BAR TO BEGIN RECORDING";
830 PRINT@385,"PRESS Z TO  PLAYBACK SONG";
840 PRINT@449,"PRESS X TO ERASE SONG MEMORY";
850 GOTO 300
1000 DATA 89,C,Q,99,#,2,108,D,W,117,#,3,125,E,E
1010 DATA 133,F,R,140,#,5,147,G,T,153,#,6,159,A,Y
1020 DATA 165,#,7,170,B,U,176,C,I,180,#,9
1030 DATA 185,D,O,189,#,0,193,E,P,197,F,@
1040 DATA 39,199,16,40,168,0,41,201,32
1050 DATA 42,170,0,43,203,48,44,204,64
1060 DATA 45,173,0,46,206,80,47,175,0
1070 DATA 48,208,96,49,177,0,50,210,112
1080 DATA 51,211,16,52,180,0,53,213,32
1090 DATA 54,182,0,55,215,48,56,216,64
1100 DATA -1,-1,-1,-1,-1,-1
```

VIC-20

```
1 REM *** MUSIC RECORDER VIC-20 ***
10 GOTO 600
99 REM *** PLAY NOTE ROUTINE ***
100 POKE CB+T+22*0,1
110 POKE V,15:POKE S3,NV(T)
120 FOR DUR=1 TO 100:NEXT DUR
130 POKE CB+T+22*0,0
150 IF F<>1 THEN RETURN
160 IF C>99 THEN 400
170 NH(C)=T
180 C=C+1
190 RETURN
199 REM *** RECORD NOTE ROUTINE ***
200 F=0
210 FOR B=1 TO C-1
220 T=NH(B)
230 GOSUB 100
240 NEXT B
299 REM *** READ KEYBOARD ROUTINE ***
300 T=19:POKE S3,0
310 GET N$:IF N$=""THEN 300
320 IF N$=KB$(T) THEN GOSUB 100
330 T=T-1
340 IF T>1 THEN 320
350 IF N$=CHR$(133) THEN F=1
360 IF N$=CHR$(134) THEN 200
370 IF N$=CHR$(135) THEN 400
380 IF N$=CHR$(136) THEN 500
390 GOTO 300
399 REM *** ERASE NOTE ROUTINE ***
400 FOR X=0 TO 100
410 NH(X)=0
420 NEXT X
430 C=1
```

```
440 GOTO 300
499 REM *** CHANGE SCREEN COLOR ***
500 S=S+1
510 IF S=19 THEN S=2
520 POKE SC,SC(S)
530 GOTO 300
599 REM *** INITIALIZE VARIABLES ***
600 CB=38400:SB=7680:S3=36876
610 V=36878:SC=36879:X=22:C=1:S=2
620 DIM NV(X),BC(X),Y(X),SC(X)
630 DIM CV(X),KB$(X),NH(100),NC(X)
639 REM *** SCREEN DISPLAY ***
640 PRINT CHR$(147)
650 POKE SC,190
660 FOR X=2 TO 19
670 READ NC(X),NV(X),BC(X),Y(X)
680 READ CV(X),KB$(X),SC(X)
690 NEXT X
700 FOR CO=2 TO 19
710 FOR RO=1 TO Y(CO)+1
720 POKE CB+CO+22*RO,BC(CO)
730 POKE SB+CO+22*RO,160
740 POKE CB+CO+22*9,0
750 POKE SB+CO+22*9,CV(CO)
760 POKE CB+CO+22*0.0
770 POKE SB+CO+22*0,NC(CO)
780 NEXT RO
790 NEXT CO
800 PRINT CHR$(19)CHR$(144)
810 FOR X=1 TO 11
820 PRINT:NEXT
830 PRINT "F1 TO BEGIN RECORDING"
840 PRINT:PRINT
850 PRINT "F3 TO PLAY BACK"
860 PRINT:PRINT
870 PRINT "F5 TO ERASE MEMORY"
880 PRINT:PRINT
890 PRINT "F7 TO CHANGE COLORS"
900 GOTO 300
1000 DATA 3,195,1,6,23,W,159,35,199,0,5,51,3,173
1010 DATA 4,201,7,6,5,E,174,35,203,0,5,52,4,175
1020 DATA 5,207,2,6,18,R,188,6,210,5,6,20,T,189
1030 DATA 35,212,0,5,54,6,190,7,215,6,6,25,Y,203
1040 DATA 35,217,0,5,55,7,204,1,219,4,6,21,U,205
1050 DATA 35,221,0,5,56,8,218,2,223,3,6,9,I,219
1060 DATA 3,225,1,6,15,O,220,35,227,0,5,48,0,253
1070 DATA 4,228,7,6,16,P,234,35,229,0,5,43,+,235
1080 DATA 5,231,2,6,0,@,252,6,232,5,6,42,*,250
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