

# TI Home Computer Users Club



MEMBERS PROGRAMS

No.

008

No. 008 TITLE : ACTUARIAL LOAN INTEREST CALCULATION by Bill White

```
NUM 10,10
10 REM **ACTUARIAL LOAN**
20 REM *****INTEREST*****
30 REM *****CALCULATION***
40 REM
50 REM ****WRITTEN BY****
60 REM ****BILL WHITE****
70 REM
80 INPUT "INSTALMENT":I
90 INPUT "NUMBER OF INSTALMENTS":N.
100 INPUT "AMOUNT OF LOAN":L
110 R=.06
120 GOSUB 490
130 IF C<I THEN 170
140 PRINT R;TAB(12);C
150 R=R-.001
160 GOTO 120
170 PRINT R
180 PRINT C
190 GOSUB 490
200 IF C>I THEN 240
210 PRINT R;TAB(12);C
220 R=R+.00001
230 GOTO 190
240 PRINT R
250 PRINT C
260 R=R-.0001
270 GOSUB 490
280 IF C>I THEN 320
290 PRINT R;TAB(12);C
300 R=R+.000001
310 GOTO 270
320 PRINT R
330 PRINT C
340 R=R-.00001
350 GOSUB 490
360 IF C>I THEN 400
370 PRINT R;TAB(12);C
380 R=R+.0000001
390 GOTO 350
400 PRINT "FINAL RATE";R
410 PRINT "INSTALMENT";C
420 PRINT "INTEREST INCLUDED IN EACH INSTALMENT"
430 FOR X=N TO 1 STEP -1
440 PRINT (I)-(I/(1+R)^X);
450 NEXT X
460 REM ANNUAL PERCENTAGE RATE
470 PRINT "APR=";((1+R)^12-1)*100;"PER CENT"
480 STOP
490 C=((1+R)^N*R*L)/((1+R)^N-1)
500 RETURN
```

Over/...

EXAMPLE :-

	<u>TOTAL</u> <u>INSTALMENT</u>	<u>INTEREST</u>	<u>CAPITAL</u>	<u>CAPITAL</u> <u>O/S</u>
				1000 - Amount of Loan
1	92.50	16.43	76.07	923.93
2	92.50	15.18	77.32	846.61
3	92.50	13.91	78.59	768.02
4	92.50	12.62	79.88	688.14
5	92.50	11.31	81.19	606.95
6	92.50	9.97	82.53	524.42
7	92.50	8.62	83.88	440.54
8	92.50	7.24	85.26	355.28
9	92.50	5.84	86.66	268.62
10	92.50	4.41	88.09	180.53
11	92.50	2.97	89.53	91.00
12	92.50	1.50	91.00	00.00
	<u>1,110.00</u>	<u>110.00</u>	<u>1000.00</u>	

APR = 21.6%

THIS PROGRAM TAKES 3 MINUTES TO RUN

NOTES :-

- Each amount of interest is the previous capital outstanding x .0164324  
E.g. .0164324 x 1,000 = 16.43  
x 923.93 = 15.18  
and so on throughout the loan.
- Capital repayments can be printed on the Computer by editing line 440 - PRINT I/(1+R)^X;  
and re-running program.
- The program is considerably speeded up by deleting the print lines 140, 210, 290, 370.
- Up to 36 interest amounts will show on screen at line 440.  
If more are needed, break program run and then continue.
- Edit line 110 above .06 If APR is over 100%.

# TI Home Computer Users Club



MEMBERS PROGRAMS

No.

009

TITLE : RIFLE RANGE by Julian Dockery

```
100 REM RIFLE RANGE
110 CALL CLEAR
120 CALL SCREEN(16)
130 PRINT " USE THE SPACE BAR TO SHOOT THE
FALLING BOTTLES"
140 LOOP=LOOP+1
150 IF LOOP=200 THEN 160 ELSE 140
160 HIT=1
170 CALL CLEAR
180 CALL SCREEN(5)
190 LOOP=0
200 INPUT " NAME?":NAME$
210 H=22
220 CALL CLEAR
230 CALL SCREEN(16)
240 CALL CLEAR
250 CALL CHAR(34,"00000000FFFFFFFF")
260 CALL CHAR(33,"00030303FFFFFFFF")
270 CALL CHAR(40,"18183C3C3C3C3C3C")
280 CALL CHAR(96,"1CAD53E109FA92D6")
290 CALL CHAR(41,"F403ACA60964AC91")
300 CALL CHAR(104,"000000010E1E0E01")
310 CALL COLOR(1,2,1)
320 CALL COLOR(2,13,1)
330 CALL COLOR(9,7,11)
340 CALL COLOR(10,5,1)
350 WW=32
360 W=32
370 Y=1
380 CALL HCHAR(H,22,33,1)
390 CALL HCHAR(H,23,34,10)
400 RANDOMIZE
410 X=INT(RND*13)+3
420 WW=32
430 W=32
440 Y=1
450 BOT=BOT+1
460 IF BOT=30 THEN 1510 ELSE 470
470 IF HIT/6=INT(HIT/6) THEN 480 ELSE 510
480 H=H-3
490 HIT=1
500 GOTO 220
510 RANDOMIZE
520 AOC=INT(RND*100)
530 IF AOC<77 THEN 540 ELSE 660
540 AOC=2
550 ACC=1
560 RANDOMIZE
570 NUG=INT(RND*100)
580 IF NUG<70 THEN 590 ELSE 630
590 SPEED=(INT(RND*2.5)+1.5)/2
600 IF SPEED<1 THEN 590 ELSE 610
610 SPEED=INT(SPEED)
620 GOTO 780
630 SPEED=(INT(RND*6)+2)/2
640 SPEED=INT(SPEED)
650 GOTO 780
660 RANDOMIZE
670 CH=INT(RND*2)+1
680 IF CH=1 THEN 690 ELSE 740
690 SPEED=0.5
700 RANDOMIZE
710 ACC=(INT(RND*5)+1)/2
720 IF ACC<=1 THEN 710
730 FOTO=780
740 SPEED=5
750 RANDOMIZE
760 ACC=(INT(RND*6)+1)/4
770 IF ACC>1 THEN 760
780 CALL SOUND(-90,400+(20*Y),30-X)
790 CALL KEY(0,K,S)
800 IF K=0 THEN 32767 ELSE 810
810 IF S<>1 THEN 890 ELSE 820
820 IF K=32 THEN 840 ELSE 830
830 IF K=18 THEN 840 ELSE 890
840 W=21
850 CALL HCHAR(H,32,34,1)
860 CALL HCHAR(H,30,34,1)
870 BULL=BULL+1
880 CALL SOUND(-50,-8,0,30000,0,2000,30)
890 YY=Y
900 Y=Y+(INT(SPEED))
910 SPEED=SPEED*ACC
920 IF SPEED<1 THEN 930 ELSE 940
930 SPEED=1
940 IF Y>24 THEN 1040 ELSE 950
950 CALL VCHAR(YY,X,32,1)
960 CALL VCHAR(Y,X,40,1)
970 WW=W
980 IF W<25 THEN 990 ELSE 1020
990 W=W-2
1000 IF W<1 THEN 1010 ELSE 1020
1010 W=32
1020 CALL VCHAR(H,W,104,1)
1030 CALL VCHAR(H,WW,32,1)
1040 IF Y>H THEN 1060 ELSE 1050
1050 GOTO 780
1060 IF (H-Y)=(W-X) THEN 1150 ELSE 1070
1070 IF (H-Y)-1=(W-X) THEN 1150 ELSE 1080
1080 W=32
1090 IF WW<3 THEN 1110 ELSE 1100
1100 CALL VCHAR(H,WW-2,32,1)
1110 IF Y>24 THEN 1120 ELSE 1130
1120 Y=YY
1130 CALL VCHAR(Y,X,32,1)
1140 GOTO 1460
1150 CALL VCHAR(Y,X,96,1)
1160 CALL SOUND(-50,-2,0,2000,0,110,15)
1170 LOOP=0
1180 LOOP=LOOP+1
1190 IF LOOP=30 THEN 1200 ELSE 1180
1200 CALL SOUND(-40,2000,0,5000,0,30000,0)
1210 BULL=BULL-1
1220 TIH=TIH+1
1230 AYD=AYD+3
```

Over/...

```
1240 IF ACC<>1 THEN 1250 ELSE 1270
1250 AYD=AYD*2
1260 AYD=AYD+(23/H/2)
1270 IF SPEED>1 THEN 1280 ELSE 1290
1280 AYD=AYD+2
1290 SCORE=SCORE+AYD
1300 ADDY=0
1310 HIT=HIT+1
1320 CALL VCHAR(Y,X,41,1)
1330 CALL SOUND(-20,4000,0,-8,0,20000,0)
1340 CALL VCHAR(H,W,32,1)
1350 CALL VCHAR(Y,X,41,1)
1360 RANDOMIZE
1370 OZ=INT(RND*300)+50
1380 CRIE=0
1390 CRIE=CRIE+1
1400 IF CRIE=25 THEN 1410 ELSE 1430
1410 CALL VCHAR(Y+1,X,41,1)
1420 CALL VCHAR(Y,X,32,1)
1430 IF CRIE=50 THEN 1440 ELSE 1450
1440 CALL VCHAR(Y+1,X,32,1)
1450 IF CRIE=OZ THEN 400 ELSE 1390
1460 RANDOMIZE
1470 PAG=INT(RND*300)+100
1480 LOOP=0
1490 LOOP=LOOP+1
1500 IF LOOP=PAG THEN 400 ELSE 1490
1510 CALL CLEAR
1520 IF SCORE>SC THEN 1530 ELSE 1570
1530 PRINT " **BEST * SCORE**"
1540 BES$=NAM$
1550 SC=INT(SCORE)
1560 GOTO 1610
1570 PRINT " BEST SCORE IS";SC;"BY ";BES$
1580 PRINT
1590 PRINT
1600 PRINT
1610 PRINT " YOUR SCORE=";INT(SCORE)
1620 PRINT
1630 PRINT
1640 PRINT " YOU HIT";TIH;"BOTTLES OUT OF";BOT;"
"BOTTLES."
1650 PRINT
1660 PRINT
1670 PRINT " YOU FIRED";BULL;"BULLETS."
1680 PRINT
1690 PRINT
1700 PRINT
1710 PRINT " PRESS SPACE BAR FOR ANOTHER GO "
1720 CALL KEY(0,K,S)
1730 IF K=32 THEN 1740 ELSE 1720
1740 SCORE=0
1750 BOT=0
1760 TIH=0
1770 BULL=0
1780 GOTO 160
```

# TI Home Computer Users Club



MEMBERS PROGRAMS

Nos./ 010 and 011 (over)

No. 010 TITLE : BAR CHARTS FOR MONTHS OF YEAR by P.D. Baker

```
100 CALL CLEAR
110 CALL CHAR(103,"000000000000FFFF")
120 DIM X(12)
130 INPUT "ENTER SCALE OF Y AXIS   ":Y
140 FOR I=1 TO 10
150 B=B+Y
160 D(I)=B
170 NEXT I
180 PRINT "ENTER DATA.12  ENTRIES"
190 FOR I=1 TO 12
200 INPUT N
210 X(I)=INT(N/Y)
220 NEXT I
230 PRINT "ENTER X AXIS LABELS"
240 PRINT "IN THE FORM OF"
250 PRINT "A STRING OF 12 LETTERS"
260 PRINT " E.G.   JFMAMJJASOND"
270 INPUT A$
280 IF LEN(A$)<>12 THEN 300 ELSE 320
290 CALL CLEAR
300 PRINT "PLEASE REENTER 12 LETTERS"
310 GOTO 230
320 REM DRAW AXIS LINES
330 CALL COLOR(11,7,1)
340 CALL CLEAR
350 CALL CHAR(118,"000000000000FFFF")
360 CALL CHAR(119,"0202020202020202")
370 CALL HCHAR(22,6,118,26)
380 CALL VCHAR(3,6,119,20)
390 FOR I=7 TO 30 STEP 2
400 E=E+1
410 CALL HCHAR(23,I,ASC(SEG$(A$,E,1)))
420 NEXT I
430 F=11
440 FOR I=3 TO 22 STEP 2
450 F=F-1
460 G=0
470 C=1
480 G=G+I
490 C=C+I
500 BS(F)=STR$(D(F))
510 CALL HCHAR(I,C,ASC(SEG$(B$(F),G,1)))
520 IF LEN(B$(F))<1 THEN 530 ELSE 560
530 IF G=LEN(B$(F))THEN 550
540 GOTO 480
550 NEXT I
560 CALL COLOR(12,7,7)
570 C=5
580 FOR I=1 TO 12
590 R=22
600 C=C+2
610 IF X(I)<21 THEN 650 ELSE 620
620 IF X(I)>1 THEN 630 ELSE 670
630 GOSUB 740
640 GOTO 680
650 GOSUB 700
660 GOTO 680
670 CALL VCHAR(R-X(I),C,120,X(I))
680 NEXT I
690 GOTO 390
700 CALL COLOR(10,5,5)
710 X(I)=21
720 CALL VCHAR(R-X(I),C,111,X(I))
730 RETURN
740 CALL COLOR(9,1,11)
750 X(I)=1
760 CALL VCHAR(R-X(I),C,103,X(I))
770 RETURN
```

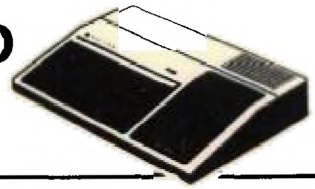
No. 011 TITLE : DRAWING BOARD by C.J. Edson (age 11)

```

10 CALL CLEAR
20 INPUT "INSTRUCTIONS (Y/N) ":A$
30 IF A$="Y" THEN 720
40 CALL COLOR(8,12,12)
50 CALL COLOR(5,9,9)
60 CALL COLOR(3,6,6)
70 CALL COLOR(4,8,8)
80 CALL COLOR(6,14,14)
90 CALL COLOR(7,2,2)
100 CALL COLOR(1,3,3)
110 CALL COLOR(12,16,16)
120 REM DRAWING BOARD BY C.J.EDSON. 20.4.84.
130 D=126
140 CALL VCHAR(1,1,126,1000)
150 CALL VCHAR(1,2,83,24)
160 CALL HCHAR(1,3,83,30)
170 CALL VCHAR(1,32,83,24)
180 CALL HCHAR(24,83,30)
190 A=5
200 B=5
210 CALL VCHAR(A,B,30)
220 CALL KEY(O,K,S)
230 IF S=0 THEN 220
240 IF K=51 THEN 580
250 IF K=49 THEN 660
260 IF K=55 THEN 260
270 IF K=68 THEN 380
280 IF K=56 THEN 640
290 IF K=76 THEN 700
300 IF K=69 THEN 420
310 IF K=54 THEN 560
320 IF K=88 THEN 460
330 IF K=52 THEN 600
340 IF K=83 THEN 500
350 IF K=53 THEN 540
360 IF K=50 THEN 680
370 GOTO 220
380 IF B=31 THEN 220
390 CALL VCHAR(A,B,D)
400 B=B+1
410 GOTO 210
420 IF A=2 THEN 220
430 CALL VCHAR(A,B,D)
440 A=A-1
450 GOTO 210
460 IF A=23 THEN 220
470 CALL VCHAR(A,B,D)
480 A=A+1
490 GOTO 210
500 IF B=3 THEN 220
510 CALL VCHAR(A,B,D)
520 B=B-1
530 GOTO 210
540 D=67
550 GOTO 210
560 D=73
570 GOTO 210
580 D=32
590 GOTO 210
600 D=58
610 GOTO 210
620 D=85
630 GOTO 210
640 D=90
650 GOTO 210
660 D=126
670 GOTO 210
680 D=51
690 GOTO 210
700 CALL VCHAR(A,B,D)
710 GOTO 710
720 CALL CLEAR
730 PRINT "USING THE ARROW KEYS GUI
DE THE CURSOR AROUND THE BOARD USI
NG THE NUMBERS FOR THE COLOURS "
740 PRINT " "
750 PRINT " " 1 WHITE
760 PRINT " "
770 PRINT " " 2 DARK BLUE
780 PRINT " "
790 PRINT " " 3 DARK GREEN
800 PRINT " "
810 PRINT " " 4 PALE BLUE
820 PRINT " "
830 PRINT " " 5 RED
840 PRINT " "
850 PRINT " " 6 PURPLE
860 PRINT " "
870 PRINT " " 7 BLACK
880 PRINT " "
890 PRINT " " 8 YELLOW
900 FOR S=1 TO 1500
910 NEXT S
920 PRINT " "
930 PRINT " PRESS Y TO CONTINUE."
940 CALL KEY(O,K,S)
950 IF K=89 THEN 970
960 GOTO 940
970 CALL CLEAR
980 PRINT " TO REMOVE BRUSH CURSOR W
HEN YOUR DRAWING IS FINISHED, PRES
S " " L " " "
990 PRINT " PRESS Y TO CONTINUE "
1000 CALL KEY(O,K,S)
1010 IF S=0 THEN 1000
1020 GOTO 40

```

# TI Home Computer Users Club



MEMBERS PROGRAMS

Nos./012 and 013 (over)

No. 012 TITLE : "CLOCK" by Robert T J Marshall

"CLOCK" prints a digital clock in the top right hand corner of the screen and allows it to be incremented by 0.5 seconds by the use of "GOSUB 1000". Therefore, by using this statement in for-next loops and with "CALL KEY", the clock can be made to run throughout the program. The subroutine can be adapted to make the clock run faster or slower, to run backwards, to show hours and minutes only or even to display two clocks, perhaps for a two player board game.

```
100 REM -CLOCK-
110 REM -BY ROBERT MARSHALL-
120 REM
130 REM
140 REM -DEMONSTRATION PROGRAM-
150 CALL CLEAR
160 GOSUB 1000
170 GOTO 160
980 STOP
990 REM -SUBROUTINE-
1000 T=T+.5
1010 IF T=INT(T) THEN 1030
1020 RETURN
1030 M(1)=INT(T/3600)
1040 M(2)=INT(T/60)-(M(1)*60)
1050 M(3)=T-(M(1)*3600)-(M(2)*60)
1060 FOR A=1 TO 3
1070 IF M(A)<10 THEN 1100
1080 M$(A)=STR$(M(A))
1090 GOTO 1110
1100 M$(A)="0"&STR$(M(A))
1110 NEXT A
1120 T$=M$(1)&":"&M$(2)&":"&M$(3)
1130 FOR A=1 TO 8
1140 CALL HCHAR(1,20+A,ASC(SEG$(T$,A,1)))
1150 NEXT A
1160 RETURN
```

No. 013 TITLE : MUSIC UTILITY PROGRAM by Marcus Bainbridge

This is designed for a musician who would like anything from a short tune to Bach's "Toccatà in D minor". The user should store the data in the form:

DATA LENGTH\$, TEMPO.

DATA NOTE\$

LENGTH\$ is the length of the notes (1 character is the length of one note):

A = Semi quaver  
B = Quaver  
C = Dotted quaver  
D = Crotchet  
F = Dotted crotchet  
H = Minim  
L = Dotted minim  
P = Semi-breve  
X = Breve

Tempo is found in the form 30 = fast (not recommended for tunes containing semi quavers or Quavers) to 190 = slow.

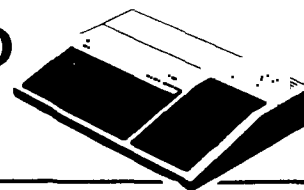
Note\$ is similar to LENGTH\$ except Key A is note A below middle C. Key B is B<sup>b</sup>. Key C is B. Key D is middle C, etc.

#### MUSIC UTILITY

```
10 DIM P(100)
20 A=2^(1/12)
30 FOR I=1 TO 100
40 P(I) = 220*A^(I-1)
50 NEXT I
60 REM CONTINUE WITH
70 REM MAIN PROGRAM
1000 REM MUSIC SUBROUTINE
1010 READ LENGTH$, TEMPO, NOTE$
1020 FOR I=1 TO LEN (LENGTH$)
1030 N1 = ASC(SEG$(LENGTH$,I,1))
1040 N2 = ASC(SEG$(NOTE$, I,1))
1050 CALL SOUND(N1*TEMPO,P(N2),0)
1060 NEXT I
1070 RETURN
5000 DATA ..... (LENGTH$)
5010 DATA ..... (TEMPO (30-190))
5020 DATA ..... (NOTE$)
```



# TI Home Computer Users Club



MEMBERS PROGRAMS

No.

014

No. 014

TITLE : FLIGHT SIMULATOR (Requires speech editor and joysticks)

```
100 REM *****
110 REM *
120 REM * MOON 02 *
130 REM *
140 REM * B Y *
150 REM *
160 REM * P.N. THOMPSON *
170 REM *
180 REM *****
190 TI=0
200 G=1.2
210 W=15
220 CALL CLEAR
230 CALL SCREEN(15)
240 W=W+1
250 REM ** INSTRUCTIONS **
260 PRINT "INSTRUCTIONS":
270 PRINT " Use the joysticks to fly with, pull down to slow
your descent or left to go left and so on..."
280 PRINT "When you have landed pull down on the joystick as
though to fire the engines and then press 'T' or 'A' ";
290 PRINT "this will then fire the engines. If you press 'T'
or 'A' before pulling down on the joystick you will crash."
300 PRINT "Oh YES... 'T' is for take-off, and 'A' is for
another space ship."
310 REM ** END OF INSTRUCTIONS **
320 FOR DEL=1 TO 7000
330 NEXT DEL
340 CALL CLEAR
350 REM ** DEFINE CHARACTERS **
360 CALL CHAR(149,"FFFFFFFFFFFFFFFF")
370 CALL CHAR(130,"7EDBDBDBFF1824E7")
380 CALL CHAR(140,"3C3C1C18181")
390 CALL COLOR(13,5,1)
400 CALL COLOR(14,7,1)
410 CALL COLOR(15,4,1)
420 NF=FU
430 HT=2
440 VEL=3
450 FU=200
460 REM ** PLOT GRAPHICS **
470 CALL HCHAR(24,3,149,29)
480 CALL HCHAR(23,3,149,28)
490 CALL HCHAR(23,26,149,6)
500 CALL HCHAR(22,27,149,5)
510 CALL HCHAR(21,3,149,2)
520 CALL HCHAR(22,7,149,4)
530 CALL HCHAR(20,8,149,1)
540 CALL HCHAR(21,8,149,2)
550 CALL HCHAR(22,3,149,2)
560 CALL VCHAR(15,9,149,8)
570 CALL VCHAR(13,20,149,10)
580 CALL SAY("#READY TO START#")
590 FOR DEL=1 TO 100
600 NEXT DEL
610 CALL HCHAR(HT,W,130)
620 REM ** DISPLAY FUEL & VEL **
630 VEL=VEL+G
640 Z$="FUEL ="&STR$(FU)
650 FOR J=1 TO LEN(Z$)
660 CH=ASC(SEG$(Z$,J,1))
670 CALL HCHAR(1,3+J,CH)
680 NEXT J
690 X$="VEL ="&STR$(VEL)
700 FOR K=1 TO LEN(X$)
710 CH=ASC(SEG$(X$,K,1))
720 CALL HCHAR(1,20+K,CH)
730 NEXT K
740 IF FU<100 THEN 750 ELSE 760
750 CALL HCHAR(1,12,149,1)
760 REM ** OUT OF FUEL **
770 IF FU=0 THEN 1020
780 REM ** IGNITION **
```

Over/...

```

790 IF FU<100 THEN 800 ELSE 820
800 CALL SOUND (600,-2,0)
810 REM
820 CALL JOYST(1,X,Y)
830 IF Y<>-4 THEN 850
840 GOTO 900
850 IF X<>4 THEN 880
860 W=W+1
870 GOTO 900
880 IF X<>-4 THEN 1040
890 W=W-1
900 CALL SOUND(250,-5,2)
910 CALL GCHAR(HT+1,W,CH)
920 CALL HCHAR(HT+1,W,140)
930 FOR DEL=1 TO 100
940 NEXT DEL
950 REM
960 FU=FU-10
970 IF FU>0 THEN 990
980 FU=0
990 VEL=VEL-2
1000 CALL HCHAR(HT+1,W,CH)
1010 IF Y<>-4 THEN 1020 ELSE 1040
1020 CALL HCHAR(HT,W-1,1)
1030 CALL HCHAR(HT,W+1,1)
1040 CALL HCHAR(HT,W,1)
1050 DF=INT((NF-FU)/15)
1060 G=G+DF
1070 NF=FU
1080 HT=INT(HT+VEL)
1090 IF TI=10 THEN 1110
1100 IF HT>=22 THEN 1190
1110 IF HT<22 THEN 1120 ELSE 1130
1120 G=1.2
1130 CALL GCHAR(HT,W,Z)
1140 IF Z>33 THEN 1210
1150 CALL GCHAR(HT+1,W,X)
1160 IF X>33 THEN 1190
1170 GOTO 610
1180 REM
1190 IF VEL<2.1 THEN 1270
1200 REM
1210 CALL SOUND(300,-5,2)
1220 CALL SAY("UHOH,SO+SORRY")
1230 CALL HCHAR(HT,W,131)
1240 TI=0
1250 GOTO 340
1260 REM
1270 CALL SOUND(200,320,2)
1280 CALL HCHAR(HT,W,130)
1290 CALL SAY("#GOOD WORK#")
1300 FOR DEL=1 TO 500
1310 NEXT DEL
1320 G=0
1330 TI=10
1340 REM
1350 CALL SAY("PRESS+T+TO+TAKE+OFF OR A+FOR+AN+OTHER+GO")
1360 CALL KEY(0,K,S)
1370 IF K<>116 THEN 1390
1380 GOTO 1420
1390 IF K<>97 THEN 1360
1400 FU=FU+50
1410 GOTO 390
1420 FU=FU+75
1430 GOTO 780
1440 END

```

# TI Home Computer Users Club



MEMBERS PROGRAMS

No.

008

No. 008 TITLE : ACTUARIAL LOAN INTEREST CALCULATION by Bill White

```
NUM 10,10
10 REM **ACTUARIAL LOAN**
20 REM *****INTEREST*****
30 REM ***CALCULATION***
40 REM
50 REM ***WRITTEN BY***
60 REM ***BILL WHITE***
70 REM
80 INPUT "INSTALMENT":I
90 INPUT "NUMBER OF INSTALMENTS":N
100 INPUT "AMOUNT OF LOAN":L
110 R=.06
120 GOSUB 490
130 IF C<I THEN 170
140 PRINT R;TAB(12);C
150 R=R-.001
160 GOTO 120
170 PRINT R
180 PRINT C
190 GOSUB 490
200 IF C>I THEN 240
210 PRINT R;TAB(12);C
220 R=R+.00001
230 GOTO 190
240 PRINT R
250 PRINT C
260 R=R-.0001
270 GOSUB 490
280 IF C>I THEN 320
290 PRINT R;TAB(12);C
300 R=R+.000001
310 GOTO 270
320 PRINT R
330 PRINT C
340 R=R-.00001
350 GOSUB 490
360 IF C>I THEN 400
370 PRINT R;TAB(12);C
380 R=R+.0000001
390 GOTO 350
400 PRINT "FINAL RATE";R
410 PRINT "INSTALMENT";C
420 PRINT "INTEREST INCLUDED IN EACH INSTALMENT"
430 FOR X=N TO 1 STEP -1
440 PRINT (I)-(I/(1+R)^X);
450 NEXT X
460 REM ANNUAL PERCENTAGE RATE
470 PRINT "APR=";((1+R)^12-1)*100;"PER CENT"
480 STOP
490 C=((1+R)^N*R*L)/((1+R)^N-1)
500 RETURN
```

Over/...

EXAMPLE :-

	<u>TOTAL INSTALMENT</u>	<u>INTEREST</u>	<u>CAPITAL</u>	<u>CAPITAL O/S</u>
				1000 - Amount of Loan
1	92.50	16.43	76.07	923.93
2	92.50	15.18	77.32	846.61
3	92.50	13.91	78.59	768.02
4	92.50	12.62	79.88	688.14
5	92.50	11.31	81.19	606.95
6	92.50	9.97	82.53	524.42
7	92.50	8.62	83.88	440.54
8	92.50	7.24	85.26	355.28
9	92.50	5.84	86.66	268.62
10	92.50	4.41	88.09	180.53
11	92.50	2.97	89.53	91.00
12	92.50	1.50	91.00	00.00
	<u>1,110.00</u>	<u>110.00</u>	<u>1000.00</u>	

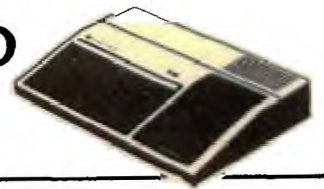
APR = 21.6%

THIS PROGRAM TAKES 3 MINUTES TO RUN

NOTES :-

- Each amount of interest is the previous capital outstanding  
x .0164324  
E.g. .0164324 x 1,000 = 16.43  
x 923.93 = 15.18  
and so on throughout the loan.
- Capital repayments can be printed on the Computer by editing  
line 440 - PRINT I/(1+R)^X;  
and re-running program.
- The program is considerably speeded up by deleting the print  
lines 140, 210, 290, 370.
- Up to 36 interest amounts will show on screen at line 440.  
If more are needed, break program run and then continue.
- Edit line 110 above .06 If APR is over 100%.

# TI Home Computer Users Club



MEMBERS PROGRAMS

No.

009

TITLE : RIFLE RANGE by Julian Dockery

```
100 REM RIFLE RANGE
110 CALL CLEAR
120 CALL SCREEN(16)
130 PRINT " USE THE SPACE BAR TO SHOOT THE
FALLING BOTTLES"
140 LOOP=LOOP+1
150 IF LOOP=200 THEN 160 ELSE 140
160 HIT=1
170 CALL CLEAR
180 CALL SCREEN(5)
190 LOOP=0
200 INPUT " NAME?":NAM$
210 H=22
220 CALL CLEAR
230 CALL SCREEN(16)
240 CALL CLEAR
250 CALL CHAR(34,"00000000FFFFFFFF")
260 CALL CHAR(33,"00030303FFFFFFFF")
270 CALL CHAR(40,"18183C3C3C3C3C3C")
280 CALL CHAR(96,"1CAD53E109FA92D6")
290 CALL CHAR(41,"F403ACA60964AC91")
300 CALL CHAR(104,"000000010E1E0E01")
310 CALL COLOR(1,2,1)
320 CALL COLOR(2,13,1)
330 CALL COLOR(9,7,11)
340 CALL COLOR(10,5,1)
350 WW=32
360 W=32
370 Y=1
380 CALL HCHAR(H,22,33,1)
390 CALL HCHAR(H,23,34,10)
400 RANDOMIZE
410 X=INT(RND*13)+3
420 WW=32
430 W=32
440 Y=1
450 BOT=BOT+1
460 IF BOT=30 THEN 1510 ELSE 470
470 IF HIT/6=INT(HIT/6) THEN 480 ELSE 510
480 H=H-3
490 HIT=1
500 GOTO 220
510 RANDOMIZE
520 AOC=INT(RND*100)
530 IF AOC<77 THEN 540 ELSE 660
540 AOC=2
550 ACC=1
560 RANDOMIZE
570 NUG=INT(RND*100)
580 IF NUG<70 THEN 590 ELSE 630
590 SPEED=(INT(RND*2.5)+1.5)/2
600 IF SPEED<1 THEN 590 ELSE 610
610 SPEED=INT(SPEED)
620 GOTO 780
630 SPEED=(INT(RND*6)+2)/2
640 SPEED=INT(SPEED)
650 GOTO 780
660 RANDOMIZE
670 CH=INT(RND*2)+1
680 IF CH=1 THEN 690 ELSE 740
690 SPEED=0.5
700 RANDOMIZE
710 ACC=(INT(RND*5)+1)/2
720 IF ACC<=1 THEN 710
730 FOTO=780
740 SPEED=5
750 RANDOMIZE
760 ACC=(INT(RND*6)+1)/4
770 IF ACC>1 THEN 760
780 CALL SOUND(-90,400+(20*Y),30-X)
790 CALL KEY(0,K,S)
800 IF K=0 THEN 32767 ELSE 810
810 IF S<>1 THEN 890 ELSE 820
820 IF K=32 THEN 840 ELSE 830
830 IF K=18 THEN 840 ELSE 890
840 W=21
850 CALL HCHAR(H,32,34,1)
860 CALL HCHAR(H,30,34,1)
870 BULL=BULL+1
880 CALL SOUND(-50,-8,0,30000,0,2000,30)
890 YY=Y
900 Y=Y+(INT(SPEED))
910 SPEED=SPEED*ACC
920 IF SPEED<1 THEN 930 ELSE 940
930 SPEED=1
940 IF Y>24 THEN 1040 ELSE 950
950 CALL VCHAR(YY,X,32,1)
960 CALL VCHAR(Y,X,40,1)
970 WW=W
980 IF W<25 THEN 990 ELSE 1020
990 W=W-2
1000 IF W<1 THEN 1010 ELSE 1020
1010 W=32
1020 CALL VCHAR(H,W,104,1)
1030 CALL VCHAR(H,WW,32,1)
1040 IF Y>H THEN 1060 ELSE 1050
1050 GOTO 780
1060 IF (H-Y)=(W-X) THEN 1150 ELSE 1070
1070 IF (H-Y)-1=(W-X) THEN 1150 ELSE 1080
1080 W=32
1090 IF WW<3 THEN 1110 ELSE 1100
1100 CALL VCHAR(H,WW-2,32,1)
1110 IF Y>24 THEN 1120 ELSE 1130
1120 Y=YY
1130 CALL VCHAR(Y,X,32,1)
1140 GOTO 1460
1150 CALL VCHAR(Y,X,96,1)
1160 CALL SOUND(-50,-2,0,2000,0,110,15)
1170 LOOP=0
1180 LOOP=LOOP+1
1190 IF LOOP=30 THEN 1200 ELSE 1180
1200 CALL SOUND(-40,2000,0,5000,0,30000,0)
1210 BULL=BULL-1
1220 TIH=TIH+1
1230 AYD=AYD+3
```

Over/...

```
1240 IF ACC<>1 THEN 1250 ELSE 1270
1250 AYD=AYD*2
1260 AYD=AYD+(23/H/2)
1270 IF SPEED>1 THEN 1280 ELSE 1290
1280 AYD=AYD+2
1290 SCORE=SCORE+AYD
1300 ADDY=0
1310 HIT=HIT+1
1320 CALL VCHAR(Y,X,41,1)
1330 CALL SOUND(-20,4000,0,-8,0,20000,0)
1340 CALL VCHAR(H,W,32,1)
1350 CALL VCHAR(Y,X,41,1)
1360 RANDOMIZE
1370 OZ=INT(RND*300)+50
1380 CRIE=0
1390 CRIE=CRIE+1
1400 IF CRIE=25 THEN 1410 ELSE 1430
1410 CALL VCHAR(Y+1,X,41,1)
1420 CALL VCHAR(Y,X,32,1)
1430 IF CRIE=50 THEN 1440 ELSE 1450
1440 CALL VCHAR(Y+1,X,32,1)
1450 IF CRIE=OZ THEN 400 ELSE 1390
1460 RANDOMIZE
1470 PAG=INT(RND*300)+100
1480 LOOP=0
1490 LOOP=LOOP+1
1500 IF LOOP=PAG THEN 400 ELSE 1490
1510 CALL CLEAR
1520 IF SCORE>SC THEN 1530 ELSE 1570
1530 PRINT " **BEST * SCORE**"
1540 BES$=NAM$
1550 SC=INT(SCORE)
1560 GOTO 1610
1570 PRINT " BEST SCORE IS";SC;"BY ";BES$
1580 PRINT
1590 PRINT
1600 PRINT
1610 PRINT " YOUR SCORE=";INT(SCORE)
1620 PRINT
1630 PRINT
1640 PRINT " YOU HIT";TIH;"BOTTLES OUT OF";BOT;"
"BOTTLES."
1650 PRINT
1660 PRINT
1670 PRINT " YOU FIRED";BULL;"BULLETS."
1680 PRINT
1690 PRINT
1700 PRINT
1710 PRINT " PRESS SPACE BAR FOR ANOTHER GO "
1720 CALL KEY(O,K,S)
1730 IF K=32 THEN 1740 ELSE 1720
1740 SCORE=0
1750 BOT=0
1760 TIH=0
1770 BULL=0
1780 GOTO 160
```

# TI Home Computer Users Club



MEMBERS PROGRAMS

Nos./ 010 and 011 (over)

No. 010 TITLE : BAR CHARTS FOR MONTHS OF YEAR by P.D. Baker

```
100 CALL CLEAR
110 CALL CHAR(103,"000000000000FFFF")
120 DIM X(12)
130 INPUT "ENTER SCALE OF Y AXIS   ":Y
140 FOR I=1 TO 10
150 B=B+Y
160 D(I)=B
170 NEXT I
180 PRINT "ENTER DATA.12 ENTRIES"
190 FOR I=1 TO 12
200 INPUT N
210 X(I)=INT(N/Y)
220 NEXT I
230 PRINT "ENTER X AXIS LABELS"
240 PRINT "IN THE FORM OF"
250 PRINT "A STRING OF 12 LETTERS"
260 PRINT " E.G.   JFMAMJJASOND"
270 INPUT A$
280 IF LEN(A$)<>12 THEN 300 ELSE 320
290 CALL CLEAR
300 PRINT "PLEASE REENTER 12 LETTERS"
310 GOTO 230
320 REM DRAW AXIS LINES
330 CALL COLOR(11,7,1)
340 CALL CLEAR
350 CALL CHAR(118,"000000000000FFFF")
360 CALL CHAR(119,"02020202020202")
370 CALL HCHAR(22,6,118,26)
380 CALL VCHAR(3,6,119,20)
390 FOR I=7 TO 30 STEP 2
400 E=E+1
410 CALL HCHAR(23,I,ASC(SEG$(A$,E,1)))
420 NEXT I
430 F=11
440 FOR I=3 TO 22 STEP 2
450 F=F-1
460 G=0
470 C=1
480 G=G+I
490 C=C+I
500 BS(F)=STR$(D(F))
510 CALL HCHAR(I,C,ASC(SEG$(B$(F),G,1)))
520 IF LEN(B$(F))<1 THEN 530 ELSE 560
530 IF G=LEN(B$(F)) THEN 550
540 GOTO 480
550 NEXT I
560 CALL COLOR(12,7,7)
570 C=5
580 FOR I=1 TO 12
590 R=22
600 C=C+2
610 IF X(I)<21 THEN 650 ELSE 620
620 IF X(I)>1 THEN 630 ELSE 670
630 GOSUB 740
640 GOTO 680
650 GOSUB 700
660 GOTO 680
670 CALL VCHAR(R-X(I),C,120,X(I))
680 NEXT I
690 GOTO 690
700 CALL COLOR(10,5,5)
710 X(I)=21
720 CALL VCHAR(R-X(I),C,111,X(I))
730 RETURN
740 CALL COLOR(9,1,11)
750 X(I)=1
760 CALL VCHAR(R-X(I),C,103,X(I))
770 RETURN
```

```
10 CALL CLEAR
20 INPUT "INSTRUCTIONS (Y/N) ":A$
30 IF A$="Y" THEN 720
40 CALL COLOR(8,12,12)
50 CALL COLOR(5,9,9)
60 CALL COLOR(3,6,6)
70 CALL COLOR(4,8,8)
80 CALL COLOR(6,14,14)
90 CALL COLOR(7,2,2)
100 CALL COLOR(1,3,3)
110 CALL COLOR(12,16,16)
120 REM DRAWING BOARD BY C.J.EDSON. 20.4.84.
130 D=126
140 CALL VCHAR(1,1,126,1000)
150 CALL VCHAR(1,2,83,24)
160 CALL HCHAR(1,3,83,30)
170 CALL VCHAR(1,32,83,24)
180 CALL HCHAR(24,83,30)
190 A=5
200 B=5
210 CALL VCHAR(A,B,30)
220 CALL KEY(O,K,S)
230 IF S=0 THEN 220
240 IF K=51 THEN 580
250 IF K=49 THEN 660
260 IF K=55 THEN 260
270 IF K=68 THEN 380
280 IF K=56 THEN 640
290 IF K=76 THEN 700
300 IF K=69 THEN 420
310 IF K=54 THEN 560
320 IF K=88 THEN 460
330 IF K=52 THEN 600
340 IF K=83 THEN 500
350 IF K=53 THEN 540
360 IF K=50 THEN 680
370 GOTO 220
380 IF B=31 THEN 220
390 CALL VCHAR(A,B,D)
400 B=B+1
410 GOTO 210
420 IF A=2 THEN 220
430 CALL VCHAR(A,B,D)
440 A=A-1
450 GOTO 210
460 IF A=23 THEN 220
470 CALL VCHAR(A,B,D)
480 A=A+1
490 GOTO 210
500 IF B=3 THEN 220
510 CALL VCHAR(A,B,D)
520 B=B-1
530 GOTO 210
540 D=67
550 GOTO 210
560 D=73
570 GOTO 210
580 D=32
590 GOTO 210
600 D=58
610 GOTO 210
620 D=85
630 GOTO 210
640 D=90
650 GOTO 210
660 D=126
670 GOTO 210
680 D=51
690 GOTO 210
700 CALL VCHAR(A,B,D)
710 GOTO 710
720 CALL CLEAR
730 PRINT "USING THE ARROW KEYS GUI
DE THE CURSOR AROUND THE BOARD USI
NG THE NUMBERS FOR THE COLOURS "
740 PRINT " "
750 PRINT "          1 WHITE
760 PRINT " "
770 PRINT "          2 DARK BLUE
780 PRINT " "
790 PRINT "          3 DARK GREEN
800 PRINT " "
810 PRINT "          4 PALE BLUE
820 PRINT " "
830 PRINT "          5 RED
840 PRINT " "
850 PRINT "          6 PURPLE
860 PRINT " "
870 PRINT "          7 BLACK
880 PRINT " "
890 PRINT "          8 YELLOW
900 FOR S=1 TO 1500
910 NEXT S
920 PRINT " "
930 PRINT "    PRESS Y TO CONTINUE."
940 CALL KEY(O,K,S)
950 IF K=89 THEN 970
960 GOTO 940
970 CALL CLEAR
980 PRINT " TO REMOVE BRUSH CURSOR W
HEN YOUR DRAWING IS FINISHED, PRES
S " " L " " "
990 PRINT "    PRESS Y TO CONTINUE "
1000 CALL KEY(O,K,S)
1010 IF S=0 THEN 1000
1020 GOTO 40
```



# TI Home Computer Users Club



MEMBERS PROGRAMS

Nos./012 and 013 (over)

No. 012      TITLE : "CLOCK" by Robert T J Marshall

"CLOCK" prints a digital clock in the top right hand corner of the screen and allows it to be incremented by 0.5 seconds by the use of "GOSUB 1000". Therefore, by using this statement in for-next loops and with "CALL KEY", the clock can be made to run throughout the program. The subroutine can be adapted to make the clock run faster or slower, to run backwards, to show hours and minutes only or even to display two clocks, perhaps for a two player board game.

```
100 REM -CLOCK-
110 REM -BY ROBERT MARSHALL-
120 REM
130 REM
140 REM -DEMONSTRATION PROGRAM-
150 CALL CLEAR
160 GOSUB 1000
170 GOTO 160
980 STOP
990 REM -SUBROUTINE-
1000 T=T+.5
1010 IF T=INT(T) THEN 1030
1020 RETURN
1030 M(1)=INT(T/3600)
1040 M(2)=INT(T/60)-(M(1)*60)
1050 M(3)=T-(M(1)*3600)-(M(2)*60)
1060 FOR A=1 TO 3
1070 IF M(A)<10 THEN 1100
1080 M$(A)=STR$(M(A))
1090 GOTO 1110
1100 M$(A)="0"&STR$(M(A))
1110 NEXT A
1120 T$=M$(1)&":"&M$(2)&":"&M$(3)
1130 FOR A=1 TO 8
1140 CALL HCHAR(1,20+A,ASC(SEG$(T$,A,1)))
1150 NEXT A
1160 RETURN
```

No. 013      TITLE : MUSIC UTILITY PROGRAM by Marcus Bainbridge

This is designed for a musician who would like anything from a short tune to Bach's "Toccatina in D minor". The user should store the data in the form:

```
DATA LENGTH$, TEMPO.  
DATA NOTES$
```

LENGTH\$ is the length of the notes (1 character is the length of one note):

```
A = Semi quaver  
B = Quaver  
C = Dotted quaver  
D = Crotchet  
F = Dotted crotchet  
H = Minim  
L = Dotted minim  
P = Semi-breve  
X = Breve
```

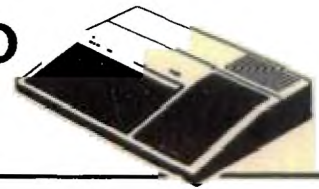
Tempo is found in the form 30 = fast (not recommended for tunes containing semi quavers or Quavers) to 190 = slow.

Notes\$ is similar to LENGTH\$ except Key A is note A below middle C. Key B is B<sup>b</sup>. Key C is B. Key D is middle C, etc.

MUSIC UTILITY

```
10 DIM P(100)  
20 A=2^(1/12)  
30 FOR I=1 TO 100  
40 P(I) = 220*A^(I-1)  
50 NEXT I  
60 REM CONTINUE WITH  
70 REM MAIN PROGRAM  
1000 REM MUSIC SUBROUTINE  
1010 READ LENGTH$, TEMPO, NOTES$  
1020 FOR I=1 TO LEN (LENGTH$)  
1030 N1 = ASC(SEG$(LENGTH$,I,1))  
1040 N2 = ASC(SEG$(Notes$, I,1))  
1050 CALL SOUND(N1*TEMPO,P(N2),0)  
1060 NEXT I  
1070 RETURN  
5000 DATA ..... (LENGTH$)  
5010 DATA ..... (TEMPO (30-190))  
5020 DATA ..... (NOTES$)
```

# TI Home Computer Users Club



MEMBERS PROGRAMS

No.

014

No. 014

TITLE : FLIGHT SIMULATOR (Requires speech editor and joysticks)

```
100 REM *****
110 REM *
120 REM * MOON 02 *
130 REM *
140 REM * B Y *
150 REM *
160 REM * P.N. THOMPSON *
170 REM *
180 REM *****
190 TI=0
200 G=1.2
210 W=15
220 CALL CLEAR
230 CALL SCREEN(15)
240 W=W+1
250 REM ** INSTRUCTIONS **
260 PRINT "INSTRUCTIONS":
270 PRINT " Use the joysticks to fly with, pull down to slow
your descent or left to go left and so on..."
280 PRINT "When you have landed pull down on the joystick as
though to fire the engines and then press 'T' or 'A' ";
290 PRINT "this will then fire the engines. If you press 'T'
or 'A' before pulling down on the joystick you will crash."
300 PRINT "Oh YES... 'T' is for take-off, and 'A' is for
another space ship."
310 REM ** END OF INSTRUCTIONS **
320 FOR DEL=1 TO 7000
330 NEXT DEL
340 CALL CLEAR
350 REM ** DEFINE CHARACTERS **
360 CALL CHAR(149,"FFFFFFFFFFFFFFFF")
370 CALL CHAR(130,"7EDBDBDBFF1824E7")
380 CALL CHAR(140,"3C3C1C18181")
390 CALL COLOR(13,5,1)
400 CALL COLOR(14,7,1)
410 CALL COLOR(15,4,1)
420 NF=FU
430 HT=2
440 VEL=3
450 FU=200
460 REM ** PLOT GRAPHICS **
470 CALL HCHAR(24,3,149,29)
480 CALL HCHAR(23,3,149,28)
490 CALL HCHAR(23,26,149,6)
500 CALL HCHAR(22,27,149,5)
510 CALL HCHAR(21,3,149,2)
520 CALL HCHAR(22,7,149,4)
530 CALL HCHAR(20,8,149,1)
540 CALL HCHAR(21,8,149,2)
550 CALL HCHAR(22,3,149,2)
560 CALL VCHAR(15,9,149,8)
570 CALL VHCHAR(13,20,149,10)
580 CALL SAY("#READY TO START#")
590 FOR DEL=1 TO 100
600 NEXT DEL
610 CALL HCHAR(HT,W,130)
620 REM ** DISPLAY FUEL & VEL **
630 VEL=VEL+G
640 Z$="FUEL ="&STR$(FU)
650 FOR J=1 TO LEN(Z$)
660 CH=ASC(SEG$(Z$,J,1))
670 CALL HCHAR(1,3+J,CH)
680 NEXT J
690 X$="VEL ="&STR$(VEL)
700 FOR K=1 TO LEN(X$)
710 CH=ASC(SEG$(X$,K,1))
720 CALL HCHAR(1,20+K,CH)
730 NEXT K
740 IF FU<100 THEN 750 ELSE 760
750 CALL HCHAR(1,12,149,1)
760 REM ** OUT OF FUEL **
770 IF FU=0 THEN 1020
780 REM ** IGNITION **
```

Over/...

```

790 IF FU<100 THEN 800 ELSE 820
800 CALL SOUND (600,-2,0)
810 REM ** CONTROL OF CRAFT **
820 CALL JOYST(1,X,Y)
830 IF Y<>-4 THEN 850
840 GOTO 900
850 IF X<>4 THEN 880
860 W=W+1
870 GOTO 900
880 IF X<>-4 THEN 1040
890 W=W-1
900 CALL SOUND(250,-5,2)
910 CALL GCHAR(HT+1,W,CH)
920 CALL HCHAR(HT+1,W,140)
930 FOR DEL=1 TO 100
940 NEXT DEL
950 RFM ** CALCULATE NEW POSITION **
960 FU=FU-10
970 IF FU>0 THEN 990
980 FU=0
990 VEL=VEL-2
1000 CALL HCHAR(HT+1,W,CH)
1010 IF Y<>-4 THEN 1020 ELSE 1040
1020 CALL HCHAR(HT,W-1,1)
1030 CALL HCHAR(HT,W+1,1)
1040 CALL HCHAR(HT,W,1)
1050 DF=INT((NF-FU)/15)
1060 G=G+DF
1070 NF=FU
1080 HT=INT(HT+VEL)
1090 IF TI=10 THEN 1110
1100 IF HT>=22 THEN 1190
1110 IF HT<22 THEN 1120 ELSE 1130
1120 G=1.2
1130 CALL GCHAR(HT,W,Z)
1140 IF Z>33 THEN 1210
1150 CALL GCHAR(HT+1,W,X)
1160 IF X>33 THEN 1190
1170 GOTO 610
1180 REM ** CONTACT **
1190 IF VEL<2.1 THEN 1270
1200 REM ** CRASHED **
1210 CALL SOUND(300,-5,2)
1220 CALL SAY("UHOH,SO+SORRY")
1230 CALL HCHAR(11,W,131)
1240 TI=0
1250 GOTO 340
1260 REM ** LANDED **
1270 CALL SOUND(200,320,2)
1280 CALL HCHAR(HT,W,130)
1290 CALL SAY("#GOOD WORK#")
1300 FOR DEL=1 TO 500
1310 NEXT DEL
1320 G=0
1330 TI=10
1340 REM ** DECIDE WHAT NEXT **
1350 CALL SAY("PRESS+T+TO+TAKE+OFF OR A+FOR+AN+OTHER+GO")
1360 CALL KEY(0,K,S)
1370 IF K<>116 THEN 1390
1380 GOTO 1420
1390 IF K<>97 THEN 1360
1400 FU=FU+50
1410 GOTO 390
1420 FU=FU+75
1430 GOTO 780
1440 END

```