

APPLE

GOAL IS AN APPLESOFT PROGRAM REQUIRING AT LEAST 16K.

BY FRED PENCE

GOAL

At the far end of the board, the Goal is beckoning as you and the computer plan your respective routes to victory.

The computer is out to make things difficult for you but achieving life's goals should never be easy.

Moving a single counter alternately you must aim to outwit your opponent and be first to move into that elusive Goal area and win the game.

You can choose who takes the first move in this game of strategy and thinking ahead. If you wish the computer to go first, enter nought, or key-in a number between one and six if you are taking the first move.

Once the counter is set in motion, it can only be moved left, right or down but it cannot be returned to a box it has already entered.

Good use is made of the Apple graphics in a well thought out game with plenty of scope for tactical manoeuvring.

```

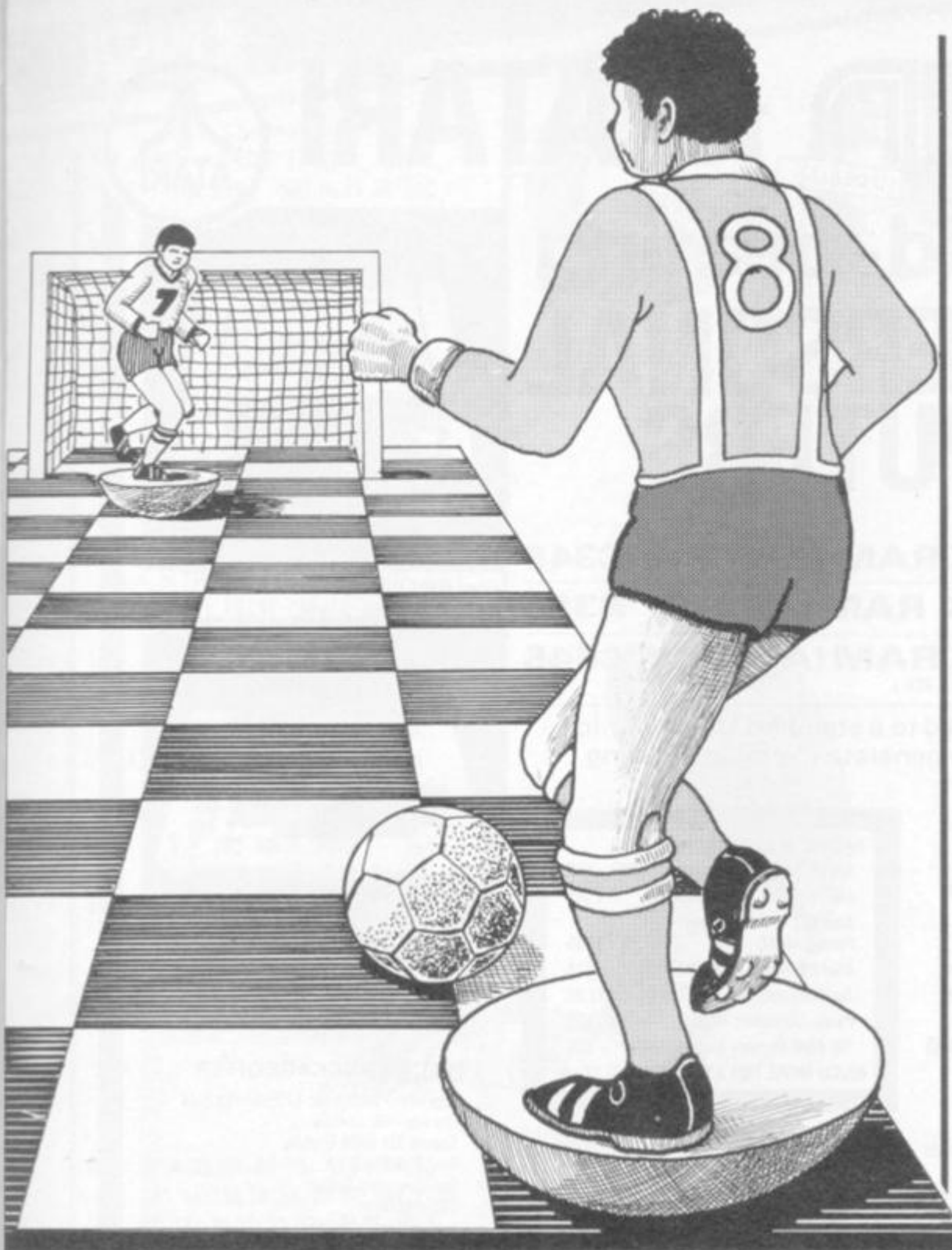
0 REM #####
1 REM ##          ##
2 REM ##    GOAL  ##
3 REM ##    BY    ##
4 REM ##  FRED PENCE ##
5 REM ##          ##
6 REM ## NOV, 1979 ##
7 REM ##          ##
8 REM #####
10 GOTO 1000
20 HOME : GR
30 DIM A(6,7)
40 FOR M1 = 0 TO 6: FOR M2 = 0 TO
   7: A(M1,M2) = 0: NEXT M2: NEXT
   M1
50 R = 1: C = 1
60 HOME : GR : COLOR= 1: FOR X =
   2 TO 38 STEP 6: VLIN 0,30 AT
   X: NEXT X: VLIN 31,39 AT 2: VLIN
   31,39 AT 38
70 FOR Y = 0 TO 30 STEP 6: HLIN
   2,38 AT Y: NEXT Y: HLIN 2,38
   AT 39
80 REM PRINTING 'GOAL'
90 COLOR= 12
100 HLIN 5,10 AT 33: HLIN 5,10 AT

```

```

37: HLIN 8,10 AT 35: VLIN 33
,37 AT 5: VLIN 35,37 AT 10
110 HLIN 14,19 AT 33: HLIN 14,19
   AT 37: VLIN 33,37 AT 13: VLIN
   33,37 AT 19
120 HLIN 22,27 AT 33: HLIN 22,27
   AT 35: VLIN 33,37 AT 22: VLIN
   33,37 AT 27
130 HLIN 30,35 AT 37: VLIN 33,37
   AT 30
140 IF PB > = 2 THEN PRINT "O.
   K. YOUR GO ": GOTO 160
150 GOTO 200
160 PRINT "- A NUMBER FROM 1 TO
   6": INPUT N
170 IF N < 1 OR N > 6 THEN PRINT
   : PRINT "NO - YOUR GO ": GOTO
   160
180 IF N = INT (N) THEN 280
190 PRINT : PRINT "AN INTEGER ":
   : GOTO 160
200 PRINT "ENTER AN INTEGER FROM
   1 TO 6 IF YOU WANT TO GO FI
   RST."
210 PRINT " IF YOU WANT ME TO G
   O FIRST ENTER 0": INPUT N

```



```

220 IF INT (N) = N THEN 260
230 PRINT : PRINT
240 PRINT " ENTER A N
    I N T E G E R "
250 PRINT : PRINT " (BETWE
    EN 0 AND 6) " : INPUT N
260 IF N > 6 OR N < 0 THEN PRINT
    : PRINT : PRINT : PRINT : GOTO
    240
270 IF N = 0 THEN C = INT (6 *
    RND (2) + 1) : A(R,C) = - 1 :
    GOTO 440
280 C = N : A(R,C) = - 1 :
290 GOTO 490
300 REM COMPUTER'S GO
310 IF R = 5 THEN C6 = C6 + 1 : GOTO
    760
320 IF (C - INT (C / 2) * 2) =
    0 THEN 390
330 REM MOVE RIGHT
340 IF A(R,C + 1) = 0 THEN C = C

```

```

    + 1 : A(R,C) = - 1 : GOTO 440
350 IF R < 4 THEN J = INT (3 *
    ( RND (2) )) : IF J > 1 THEN R
    = R + 1 : A(R,C) = - 1 : GOTO
    440
360 IF A(R,C - 1) = 0 AND C > 1 THEN
    C = C - 1 : A(R,C) = - 1 : GOTO
    440
370 R = R + 1 : A(R,C) = - 1 : GOTO
    440
380 REM MOVE LEFT
390 IF A(R,C - 1) = 0 THEN C = C
    - 1 : A(R,C) = - 1 : GOTO 440
400 IF R < 4 THEN J = INT (3 *
    RND (2) )) : IF J > 1 THEN R =
    R + 1 : A(R,C) = - 1 : GOTO 44
    0
410 IF A(R,C + 1) = 0 AND C < 6 THEN
    C = C + 1 : A(R,C) = - 1 : GOTO
    440
420 R = R + 1 : A(R,C) = - 1

```

```

430 REM COMPUTER'S GO PLOTTED
440 PRINT : PRINT : PRINT : PRINT
    " THE COMPUTE
    R I S" : PRINT : PRINT "
        THINKING"
450 FOR T = 1 TO 1000 : NEXT T
460 GOSUB 870 : COLOR= 13 : PLOT 6
    * C - 1, 6 * R - 3
470 FOR T = 1 TO 100 : NEXT T : GOTO
    510
480 REM PLAYER'S GO PLOTTED
490 GOSUB 870 : COLOR= 13 : PLOT 6
    * C - 1, 6 * R - 3 : FOR T =
    1 TO 200 : NEXT T : GOTO 310
500 REM PLAYER'S GO
510 PRINT : PRINT : PRINT : PRINT
    " IT'S YOUR GO"
520 PRINT : PRINT "INPUT AN 'L',
    AN 'R' OR A 'D' " :
530 INPUT G$
540 IF G$ = "L" AND C > 1 AND A(
    R,C - 1) = 0 THEN C = C - 1 :
    A(R,C) = - 1 : GOTO 490
550 IF G$ = "L" AND C = 1 THEN 6
    40
560 IF G$ = "L" AND A(R,C - 1) =
    - 1 THEN 660
570 IF G$ = "R" AND C < 6 AND A(
    R,C + 1) = 0 THEN C = C + 1 :
    A(R,C) = - 1 : GOTO 490
580 IF G$ = "R" AND C = 6 GOTO 6
    40
590 IF G$ = "R" AND A(R,C + 1) =
    - 1 THEN 660
600 IF G$ = "D" AND R < 5 THEN R
    = R + 1 : A(R,C) = - 1 : GOTO
    490
610 IF G$ = "D" AND R = 5 THEN P
    6 = P6 + 1 : GOTO 690
620 IF G$ = "U" THEN PRINT : PRINT
    : PRINT " YOU CAN'T GO BAC
    K UP" : GOTO 520
630 PRINT : PRINT : PRINT : PRINT
    : PRINT " YOU MUST EITHER US
    E 'L' OR 'R' OR 'D'" : GOTO
    530
640 PRINT : PRINT : PRINT : PRINT
    " YOU CAN'T MAKE THAT MOVE.
    IT'S OFF" : PRINT "THE BOA
    RD."
650 GOTO 520
660 PRINT : PRINT : PRINT : PRINT
    " YOU CAN'T MOVE THERE, THAT
    'S WHERE " : PRINT "THE COUNT
    ER WAS JUST MOVED FROM."
670 GOTO 520
680 REM PLAYER WINS
690 COLOR= 0 : FOR Z = 1 TO 6 : PLOT
    6 * Z - 1, 27 : NEXT Z

```

continued on page 41

Continued from page 39

GOAL



```

700 PRINT : PRINT : PRINT TAB(
7) "YOU WIN. YOU MUST BE LUC
KY!"
710 PRINT : PRINT "THE SCORE: C
OMPUTER - ", CB, " PLAYER - "
, PB
720 PRINT "SPACE BAR TO PLAY :
'ESC' TO END";
730 GET C#: IF ASC (C#) = 32 THEN
40
740 IF ASC (C#) = 27 THEN 880
750 GOTO 720
760 GOSUB 870: PRINT : PRINT : PRINT
: PRINT "THE SCORE: COMPUTE
R - ", CB, " PLAYER - ", PB
770 PRINT : PRINT "SPACE BAR TO
PLAY : 'ESC' KEY TO END";
780 COLOR= 0: FOR I = 31 TO 38: HLIN
3,37 AT I: NEXT I: FOR T = 1
TO 200: NEXT T
790 X = PEEK ( - 16384): IF X =
160 THEN POKE - 16368,0: GOTO
40
800 IF X = 155 THEN POKE - 163
68,0: GOTO 880
810 COLOR= 6: VLIN 32,37 AT 6: PLOT
5,32: PLOT 5,37: PLOT 7,32: PLOT
7,37

```

```

820 VLIN 32,34 AT 15: VLIN 34,36
AT 16: HLIN 16,22 AT 36: PLOT
17,37: PLOT 20,37: PLOT 15,3
4: PLOT 15,35: VLIN 33,36 AT
22: VLIN 32,34 AT 23: PLOT 1
9,34: PLOT 19,35: PLOT 18,37
: PLOT 21,37
830 VLIN 32,37 AT 26: PLOT 25,32
: PLOT 25,37: PLOT 27,32: PLOT
27,37
840 VLIN 32,37 AT 29: VLIN 32,37
AT 33: PLOT 30,33: PLOT 30,
34: PLOT 31,34: PLOT 31,35: PLOT
32,35: PLOT 32,36
850 PRINT ""
860 FOR T = 1 TO 100: NEXT T: GOTO
780
870 COLOR= 0: NORMAL : FOR F = 1
TO 6: FOR B = 1 TO 5: PLOT
6 & F - 1,6 & B - 3: NEXT B:
NEXT F: RETURN
880 TEXT : HOME : VTAB 14: PRINT
TAB( 10): "WELL I ENJOYED IT
";
890 PRINT : PRINT TAB( 10): "HOP

```

```

E YOU DID TOO!"
900 PRINT : PRINT : PRINT : END
1000 HOME : BR : COLOR= 13
1010 HLIN 9,15 AT 8: VLIN 8,12 AT
12
1020 VLIN 8,12 AT 18: VLIN 8,12 AT
23: HLIN 18,22 AT 10
1030 HLIN 26,30 AT 8: HLIN 26,29
AT 10: HLIN 26,30 AT 12: VLIN
8,12 AT 26
1040 HLIN 5,10 AT 17: HLIN 5,10 AT
21: HLIN 8,10 AT 19: VLIN 17
,21 AT 5: VLIN 19,21 AT 10
1050 HLIN 5,10 AT 17: HLIN 5,10 AT
21: HLIN 8,10 AT 19: VLIN 17
,21 AT 5: VLIN 19,21 AT 10
1060 VLIN 17,21 AT 13: VLIN 17,2
1 AT 19: HLIN 13,19 AT 17: HLIN
13,19 AT 19
1070 VLIN 17,21 AT 22: VLIN 17,2
1 AT 27: HLIN 22,27 AT 18: PLOT
23,17: PLOT 26,17: PLOT 24,1
9: PLOT 25,19

```

```

1080 HLIN 30,34 AT 17: HLIN 30,3
3 AT 19: HLIN 30,34 AT 21: VLIN
17,21 AT 30
1090 HLIN 14,19 AT 25: HLIN 14,1
9 AT 29: VLIN 25,29 AT 13: VLIN
25,29 AT 19
1100 HLIN 22,27 AT 25: HLIN 22,2
5 AT 27: VLIN 25,29 AT 22
1110 HLIN 5,10 AT 33: HLIN 5,10 AT
37: HLIN 8,10 AT 35: VLIN 33
,37 AT 5: VLIN 35,37 AT 10
1120 HLIN 14,19 AT 33: HLIN 14,1
9 AT 37: VLIN 33,37 AT 13: VLIN
33,37 AT 19
1130 HLIN 22,27 AT 33: HLIN 22,2
7 AT 35: VLIN 33,37 AT 22: VLIN
33,37 AT 27
1140 HLIN 30,35 AT 37: VLIN 33,3
7 AT 30
1150 VTAB 24: PRINT TAB( 20): "A
PENCE PROGRAM";
1160 FOR K = 1 TO 5000: NEXT K
1170 TEXT : HOME : VTAB 3: PRINT
" YOU AND THE COMPUTER WILL
ALTERNATELY"
1180 PRINT : PRINT " MOVE A COU
NTER UNTIL THE WINNER MOVES"
1190 PRINT : PRINT " INTO THE G
OAL AREA.": PRINT
1200 PRINT
1210 PRINT : PRINT " YOU MAY
CHOOSE WHO YOU WANT TO MOVE
FIRST:"
1220 PRINT
1230 PRINT " 0 FOR COMPUTER TO
MOVE FIRST"
1240 PRINT
1250 PRINT " A NUMBER FROM 1 T
O 6 TO PICK A BOX"
1260 PRINT " IN THE UPPER ROW
FOR YOUR GO"
1270 PRINT : PRINT "THEREAFTER Y
OU MOVE LEFT, RIGHT OR DOWN"
1280 PRINT "BUT YOU CANNOT RETUR
N TO A PREVIOUS BOX."
1290 PRINT : PRINT " (ADAPTED
FROM A GAME IN 'MATHEMATICS
IN MICHIGAN') 'SPACE BAR'
TO CONTINUE";
1300 GET S#: IF ASC (S#) = 32 THEN
20
1310 GOTO 1300
1320 END

```