SPIRAL MAZES

Because you forgot to doff your cap to the local tyrant, you have been thrown into his dungeons.

On the floor, scratched by a previous resident, is a map so now is your chance to escape. Rather than rush headlong into the maze, however, it would be wise to trace your way through in advance. Try drawing a continuous line from where you are to the outside of the dungeons.

By the way, if you make it to the outside, don't forget about doffing the cap next time.

How to play

A maze will be drawn on the screen. At first glance it may

appear to be a simple spiral but it may be an optical illusion.

Your position, at the centre, is marked by a red line and you move by pressing the ARROW keys.

Like Dorothy, in the Wizard of Oz, your path will be shown as a yellow line.

When you have decided whether or not your escape is possible press Y for Yes and N for No.

Programming hints

If you wish to change the direction in which the spiral is wound, then you may change the initial values of XS and YS.

If you wish to make the end wall, which blocks off the outside of the maze, run at right angles, then you should change line 320 from PLOT 1,XC, YC to two alternative lines.

       PLOT 1, 0, YC: PLOT 1, XC, 0
and   PLOT 1, XC, 0: PLOT 1, 0, YC

You will have to remember to separate the conditions in lines 280 to 310 to determine in which order the PLOT statements occur.

```
 10  REM  SPIRAL  MAZES
 20  REM  COPYRIGHT  (C)  G.LUDINSKI  1983
 30  MODE  5
 40  CLS
 50  WH=INT(RND(1)*2)
 60  PA=(2*INT(RND(1)*8))+8
 70  L=30:W=30:X=600:Y=470
 80  REM
 90  REM  DRAW  MAZE
100  REM
110  FOR  J=1  TO  2
120    XS=1:YS=-1
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```
 130     GCOL0,1:MOVE X-15,Y-15:PLOT 1,30
,0:GCOL0,3
 140     IF J=1 THEN MOVE X,Y:SP=-1:XT=X:
YT=Y
 150     IF J=2 THEN MOVE X,Y:PLOT 1,-W,0
:PLOT 1,0,W:SP=1
 160     FOR I=1 TO PA
 170     IF WH=1 AND J=2 AND I>=(PA-3)
THEN I=PA:GOTO220
 180     IF I/2=INT(I/2) THEN YP=YS*(L+
(2*INT((I+SP)/2))*W):PLOT1,0,YP:YS=-YS
 190     IF I/2=INT(I/2) AND J=1 THEN Y
T=YT+YP
 200     IF I/2<>INT(I/2) THEN XP=(L+(2
*INT((I+SP)/2))*W)*XS:PLOT1,XP,0:XS=-XS
 210     IF I/2<>INT(I/2) AND J=1 THEN
XT=XT+XP
 220     NEXTI
 230  NEXTJ
 240  REM
 250  REM BLOCK OFF END OF MAZE
 260  REM
 270  XC=0:YC=0
 280  IF (WH=0 AND XT>X) OR (WH=1 AND XT
<X) THEN XC=-W
 290  IF (WH=0 AND XT<X) OR (WH=1 AND XT
>X) THEN XC=W
 300  IF (WH=0 AND YT>Y) OR (WH=1 AND YT
<Y) THEN YC=-W
 310  IF (WH=0 AND YT<Y) OR (WH=1 AND YT
>Y) THEN YC=W
 320  PLOT1,XC,YC
 330  PRINTTAB(0,1)"Can you escape (Y/N)
"
 340  REM
 350  REM DRAW PATH THROUGH MAZE
 360  REM
 370  PROC_ARROW
 380  REM
 390  REM CHECK ANSWER
 400  REM
 410  PRINTTU$:*FX 21
 420  IF (TU$="Y" AND WH=0) OR (TU$="N"
AND WH=1) THEN PRINT"You're right.":GOTO
440
 430  PRINT"You're wrong.":FORG=1TO500:N
EXTG:OSCLI("FX 21")
 440  PRINT"More (Y/N)";:I=GET
 450  IFI=78ORI=110 THEN MODE6:OSCLI("FX
 4 0"):OSCLI("FX 11 12"):END ELSE CLS:GO
TO50
 460  REM
 470  DEFPROC_ARROW
 480  MOVE X-20,Y-15
 490  GCOL0,2
 500  *FX 4 1
 510  TU$=GET$
 520  IF TU$="Y" OR TU$="N" THEN 610
 530  X0=0:Y0=0
 540  IF TU$<CHR$(136) OR TU$>CHR$(139)
THEN GOTO510
 550  IF TU$=CHR$(136) THEN X0=-5
 560  IF TU$=CHR$(137) THEN X0=5
 570  IF TU$=CHR$(138) THEN Y0=-5
 580  IF TU$=CHR$(139) THEN Y0=5
 590  PLOT1,X0,Y0
 600  GOTO510
 610  GCOL0,3
 620  ENDPROC
 780  REM
```