



SENZA SPESE

TOWERS OF HANOI

```

3 LET Y=SIN PI
4 LET Z=SGN PI
5 DIM A(3,6)
6 FOR I=2 TO 5
  7~LET A(Z,I)=6-I
10 NEXT I
11 LET A(Z,6)=5
12 LET A(2,6)=Y
13~LET A(3,6)=Y
14 PRINT AT Z,Y:"154321":AT 2,
Y:"2":AT 3,Y:"3"
20 INPUT A#
21 IF LEN A#<2 THEN GOTO 20
22 LET F=VAL A#(2)
23~LET T=VAL A#(2)
24 IF A(T,6)=Y THEN GOTO 30
25~IF A(F,A(F,6))>A(T,A(T,6))
THEN GOTO 20
30 LET A(T,A(T,6)+2)=A(F,A(F,6)
))
32 LET K=A(F,A(F,6))
35 LET A(F,A(F,6))=Y
40 LET A(T,6)=A(T,6)+Z
45 LET A(F,6)=A(F,6)-Z
50 PRINT AT F,A(F,6)+Z:" ";AT,
T,A(T,6);K
100 GOTO 20

```

WE HAVE published a **Towers of Hanoi** program previously but this has the distinction of fitting into 1K. The display, as you can imagine, is very skeletal but it conveys the essentials of the game.

Three lines, numbered one to three, appear on screen. The first line contains the numbers 5 to 1 and those numbers must be re-assembled in the correct order on one of the other two lines. The numbers can be moved only one at a time and the listing will prevent you placing a higher one to a lower number. Enter your move in the form of "xy", where "x" is the line from which you are moving and "y" the line to which you are adding.

The program was submitted by R J Zealley of Levenshulme, Manchester. (1K ZX-81).