Program Search Solution

See www.teachinglondoncomputing.org/puzzles/ for the question sheet

```
def thanoi (pieces, movefrom, moveto, other):
    if pieces == 1:
        print ("move ring from", movefrom, "-", moveto)
    else:
        thanoi (pieces-1, movefrom, other, moveto)
        thanoi (1, movefrom, moveto, other)
        thanoi (pieces-1, other, moveto, movefrom)
```

```
   0 1 2 3 4 5 6 7 8 9 1 1 1 1 1 1 1
                       0 1 2 3 4 5 6
0  i f           ( : 1 = = )       m
1  p     t n i r p         o )     o
2  i   t h a n o i " - " , t m     v
3  e   h a ( p i e c e s , e o     e
4  c   a n       c         v r ,   t
5  e   n o       e l s e : o f m m o
6  s   o i   d   s g n i r m e o o )
7  ( p i e c e s - 1 , o   o v r v
8      m     f   1     t   v o f e :
9  e v o m " ( 1 ,     h   e m e f )
10 m o v e f r o m ,   e   t   v r r
11 , r e h t o o t h e r ) o   o o e
12     t h a n o i     ,   ,   m m h
13   m o v e f r o m , f r o m " , t
14     , m o v e t o ,             o
```

The words including punctuation as they appear and their positions in the grid are given in the following format: answer (row,column,direction)

```
def         (6,5,S)
thanoi      (12,2,E)
(pieces,    (3,4,E)
movefrom,   (13,1,E)
moveto,     (8,2,S)
other):     (14,16,N)
if          (0,0,E)
pieces      (1,0,S)
==          (0,10,E)
1:          (0,8,E)
print       (1,7,W)
("move      (5,9,W)
ring        (6,11,W)
from",      (13,10,E)
movefrom,   (5,15,S)
"-",        (2,8,E)
moveto)     (0,16,S)
```

```
else:       (5,7,E)
thanoi      (2,2,S)
(pieces-1,  (7,0,E)
movefrom,   (12,14,N)
other,      (7,10,S)
moveto)     (6,12,N)
thanoi      (2,2,E)
(1,         (9,5,E)
movefrom,   (10,0,E)
moveto,     (14,3,E)
other)      (11,6,E)
thanoi      (1,3,S)
(pieces-1,  (0,7,S)
other,      (11,5,W)
moveto,     (6,12,S)
movefrom)   (9,13,N)
```