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1: Script started on Tue Mar  6 21:07:52 2012
2: bash-3.2$ cat -n tow\007ers.pl
3:      1  % $Id: towers.pl,v 1.3 2011-05-19 19:53:59-07 - - $ */
4:      2
5:      3  %
6:      4  % Towers problem.
7:      5  %
8:      6
9:      7  towers( N ) :-
10:     8      move( N, source, spare, target ).
11:     9
12:    10  move( 0, _, _, _ ) :-
13:    11      !.
14:    12
15:    13  move( N, Source, Spare, Target ) :-
16:    14      M is N - 1,
17:    15      move( M, Source, Target, Spare ),
18:    16      report( Source, Target ),
19:    17      move( M, Spare, Source, Target ).
20:    18
21:    19  report( Source, Target ) :-
22:    20      write( 'Move a disk from the ' ),
23:    21      write( Source ),
24:    22      write( ' peg to the ' ),
25:    23      write( Target ),
26:    24      write( ' peg.'),
27:    25      nl.
28:    26
29:    27  % TEST: towers(4).
30: bash-3.2$ gprolog
31: GNU Prolog 1.3.1
32: By Daniel Diaz
33: Copyright (C) 1999-2009 Daniel Diaz
34: | ?- [towers].
35: compiling /afs/cats.ucsc.edu/courses/cmpls112-wm/Languages/prolog/Examples/towers
.pl for byte code...
36: /afs/cats.ucsc.edu/courses/cmpls112-wm/Languages/prolog/Examples/towers.pl compil
ed, 27 lines read - 1746 bytes written, 11 ms
37:
38: yes
39: | ?- towers(3).
40: Move a disk from the source peg to the target peg.
41: Move a disk from the source peg to the spare peg.
42: Move a disk from the target peg to the spare peg.
43: Move a disk from the source peg to the target peg.
44: Move a disk from the spare peg to the source peg.
45: Move a disk from the spare peg to the target peg.
46: Move a disk from the source peg to the target peg.
47:
48: yes
49: | ?- towers(5).
50: Move a disk from the source peg to the target peg.
51: Move a disk from the source peg to the spare peg.
52: Move a disk from the target peg to the spare peg.
53: Move a disk from the source peg to the target peg.
54: Move a disk from the spare peg to the source peg.
55: Move a disk from the spare peg to the target peg.
56: Move a disk from the source peg to the target peg.
57: Move a disk from the source peg to the spare peg.
58: Move a disk from the target peg to the spare peg.
59: Move a disk from the target peg to the source peg.
60: Move a disk from the spare peg to the source peg.
61: Move a disk from the target peg to the spare peg.
62: Move a disk from the source peg to the target peg.
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63: Move a disk from the source peg to the spare peg.
64: Move a disk from the target peg to the spare peg.
65: Move a disk from the source peg to the target peg.
66: Move a disk from the spare peg to the source peg.
67: Move a disk from the spare peg to the target peg.
68: Move a disk from the source peg to the target peg.
69: Move a disk from the spare peg to the source peg.
70: Move a disk from the target peg to the spare peg.
71: Move a disk from the target peg to the source peg.
72: Move a disk from the spare peg to the source peg.
73: Move a disk from the spare peg to the target peg.
74: Move a disk from the source peg to the target peg.
75: Move a disk from the source peg to the spare peg.
76: Move a disk from the target peg to the spare peg.
77: Move a disk from the source peg to the target peg.
78: Move a disk from the spare peg to the source peg.
79: Move a disk from the spare peg to the target peg.
80: Move a disk from the source peg to the target peg.
81:
82: (1 ms) yes
83: | ?-
84:
85: bash-3.2$ exit
86:
87: Script done on Tue Mar  6 21:08:54 2012
```