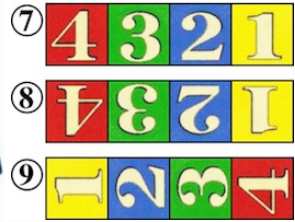


Easy 1989



Minoru Original **EASY?1989** 復刻版

始めに下記問題から1つ選んでそのカタチにコマを並べ、次に右側にある縦長のコマを取り除いてスタート。円の四角いくほみにコマを入れて回転させるとコマの向きが変わりますので、それを利用して向きを変えコマを移動させてD図のように1~4まで並べ換えてくださいと言うのが問題です。

上記A,B,C各問題の「上がり」は確認済みです。全問クリアできたら最少手数を見つけたり、上記以外の新たな問題(コマ組み)を考えてプレイしてみませんか?

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【オマケの問題集】

復刻版試作中にプレイしていたパターンをいくつか用意してみました。どれも右図のように1~4を並べてください。

*Designed by Minoru Abe circa 1989; this one purchased 2013.
(cardboard box and wood puzzle, 4.25" x 4.25" x 7/8")*

The directions show 9 problems named A - C and 1 - 6 to remove the 2x1 keeper and rearrange the pieces to read 1 2 3 4 oriented properly, starting and ending with the blank piece in the turntable in its east position. Any permutation / orientation can be achieved by a combination of cycling positions (1,3), (1,4), (2,4), (3,4) while parking a piece in position (1,1), and exchanging pieces located in positions (1,1) and (1,3) by using the turntable slot in its north position, but finding a shortest sequence is harder. We consider three rules for counting moves:

- Rule 1:** A single move may pass through the turntable independent of initial orientation.
- Rule 2:** A single separate move is required to use the turntable.
- Rule 3:** Repositioning the turntable requires an additional move. For example, moving horizontally, then rotating, then moving vertically, is 3 rectilinear moves if the turntable is east before the move, or 4 rectilinear moves if it must first be rotated.

Although not the hardest, Problem 3 is arguably the most asthenic, and shown on the right above are 3 additional problems along those lines. Here are the rectilinear moves for solutions using each of Rules 1, 2, and 3 for the total of 12 problems:

Problem A 40,56,67	Problem B 46,64,76	Problem C 58,78,92	Problem 1 42,56,67	Problem 2 52,71,84	Problem 3 26,37,46
Problem 4 60,83,99	Problem 5 57,75,88	Problem 6 53,71,83	Problem 7 32,40,48	Problem 8 38,55,68	Problem 9 22,30,35

A Sample Rectilinear Solution - Problem 3

Here a 26 rectilinear moves solution using Rule 1. Solving using Rules 2 or 3 can work the same by inserting extra moves at the appropriate places to achieve 37 or 46 rectilinear moves:

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d D a A d D a A \$	d D a A O O d D a A O O \$	d D a A O O c c d D a A O O C C \$	d D a A O O c c d D a A O O C C \$
d D O O c c d D O O C C \$	O O c c O O C C \$	O O c c O O C C \$	O O c c O O C C \$
O O c c b b O O C C B B \$	O O c c b b O O C C B B \$	O O c c b b O O C C B B \$	c c b b C C B B \$
c c b b a a d d C C B B A A D D \$	c c a a d d C C A A D D \$	c c d d C C D D \$ \$ a a \$ \$ \$ \$ \$ \$ A A \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	c c b b a a d d C C B B A A D D \$
a a c c d d A A C C D D \$	a a b b c c d d A A B B C C D D \$	a a b b c c d d A A B B C C D D \$	