Puzzle-Solving Rules

Your puzzle-solving instructions may contain only the following types of steps:

• A “basic action” that is specific to the puzzle that you’re solving (included below)

• A question answerable by yes or no, after which you can do one thing or another depending on the answer

• A directive to go back to some previous step (thus, it would be a good idea to number or label steps that you may need to refer to later on)

Towers of Hanoi

• The Towers of Hanoi puzzle has a single basic action:

  move the ring at tower $a$ to tower $b$

• $a$ and $b$ can be 1, 2, or 3 (or whatever unique labels you’ve given to the towers)

• The action remains subject to the rules of the puzzle: only smaller rings on top, and there must be a ring on tower $a$

• The puzzle ends when all rings have been moved to another tower
Mouse in a Maze

• For the “mouse in a maze” puzzle, you may perform the following basic actions:

    move the mouse up/down/right/left
    (or north/south/east/west)

    back the mouse up to its previous position

• These actions remain subject to the main rule of the puzzle: the mouse can’t move in the direction of a wall

• Since the basic actions are restricted to those listed above, the mouse clearly can’t “teleport”

• Aside from the obvious yes/no questions that you can ask, such as “Is there a wall to the north/south/east/west?” and “Has the mouse been to the north/south/east/west of where it is right now?,” don’t forget:

  ◊ Is the mouse on the same square as the cheese?
  ◊ Has the mouse returned to its starting position?

• The puzzle ends either when the mouse has reached the cheese, or when you can conclusively say (somehow) that the cheese cannot be reached (or there may be no cheese at all)