Input Example:

013

425

786

After running the program, the output file will be:

Output Example:

4

013

425

786

103

425

786

123

405

786

123

450

786

123

456

780

Note in the output example.

* Line 1 is **the fewest number of moves to solve the puzzle**, followed by an empty line.
* Line 3-6 is the initial board as given in the input, followed by an empty line.
* Line 7-9 is the board after the first move, followed by **an empty line**. •...
  + Line xx-yy is the objective board of the puzzle that has been solved.
  + The final line **is not an empty line**.
  + The 8-puzzle problem is always be solvable in this assignment.