

Tutorial Sliding-Tile Puzzle

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Tutorial for the Sliding-Tile Puzzle

In the N^2 sliding-tile puzzle, there are N^2 squares, and N^2-1 tiles, numbered from 1 to N^2-1 . These tiles are placed on the board leaving one square blank. Given some start configuration of numbered tiles on the squares, the aim is to move tiles, one at a time, until some given goal configuration is reached. A move involves placing one of the tiles that neighbours the blank square into that space, excluding the tile that was previously on the square. (You can only move in the horizontal and vertical directions of course.) The aim is to reach the goal configuration with a minimum number of tile moves.

The puzzle was first created in the late 19th century. It became a craze in the USA in 1880, and 'everybody' played it. Here's a cartoon about the difficulty in choosing the republican candidate at the 1880 U.S. presidential elections.



First set of exercises

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