

2.3 The 8-Puzzle

- The eight puzzle consists of a 3 x 3 grid with 8 consecutively numbered tiles arranged on it. Any tile adjacent to the space can be moved on it. A number of different goal states are used.

Start State Goal State

- A state for this problem needs to keep track of the position of all tiles on the game board, with 0 representing the blank position (space) on the board.
- The initial state could be represented as: ((5,4,0), (6,1,8), (7,3,2))
- The final state could be represented as: ((1,2,3) (8,0,4), (7,6,5))
- The operators can be thought of in terms of the direction that the blank space effectively moves. ie. up, down, left, right.



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