

* Solution to 8 - Puzzle Problem.

→ BFS:-

Algorithm

Let fringe be a List containing the initial state

Loop

if fringe is empty return failure

Node \leftarrow remove-first (fringe)

if Node is a goal

then return the path from initial state to node, and add

generated nodes to the fringe

End Loop.

→ DFS :

Algorithm

Let fringe be a List containing the initial state

Loop

if fringe is empty return failure

node \leftarrow remove-first (fringe)

if Node is a goal

then return the path from initial state to Node

else generate all successors.

State space tree ?

* Lab 2 - State Space Tree

Initial

1	2	3
4	5	6
0	7	8

Final

1	2	3
4	5	6
7	8	0

Initial
state

1	2	3
4	5	6
0	7	8



1	2	3
0	5	6
4	7	3

1	2	3
4	5	6
7	0	8

0	2	3
1	5	6
4	7	8

1	2	3
4	5	6
7	8	0

1	2	3
4	0	6
7	5	8

Final State

1	2	3
5	0	6
4	7	8