1. BFS

1.(bfs '(1 3 4 8 6 2 7 0 5))

NODE-LIST-LENGTH: 36

TOTAL NODES VISITED: 42

BFS PATH IS - (UP RIGHT UP LEFT DOWN)

2.(bfs '(2 8 1 0 4 3 7 6 5))

NODE-LIST-LENGTH: 236

TOTAL NODES VISITED: 360

BFS PATH IS - (UP RIGHT RIGHT DOWN LEFT LEFT UP RIGHT DOWN)

3. (bfs '(5 6 7 4 0 8 3 2 1))

NO RESULT

2. DFS

1. (dfs '(1 3 4 8 6 2 7 0 5))

NODE-LIST-LENGTH: 70001

TOTAL NODES VISITED: 117141

DES PATH IS - (UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN RIGHT UP UP LEFT DOWN RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT

DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP RIGHT UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP RIGHT UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP... ... LEFT DOWN DOWN RIGHT UP UP LEFT DOWN RIGHT UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP LEFT UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP LEFT UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP)

2. (dfs '(2 8 1 0 4 3 7 6 5))

NODE-LIST-LENGTH: 71217

TOTAL NODES VISITED: 121259

DFS PATH IS - (UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN RIGHT UP UP LEFT DOWN

DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN
RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT DOWN DOWN
LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP
UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP RIGHT UP
LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN
DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP RIGHT DOWN DOWN
RIGHT RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN
LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN RIGHT UP UP
LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP
LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN
DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN
DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT
UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT
UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT
UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT
UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT
UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT....

.... DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN
DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN RIGHT UP
LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN
DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN
RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP
UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN)

3. (dfs '(5 6 7 4 0 8 3 2 1))

NODE-LIST-LENGTH: 50465

TOTAL NODES VISITED: 76102

DFS PATH IS - (UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN

RIGHT RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN

LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP RIGHT UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP RIGHT UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP RIGHT UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP RIGHT UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP RIGHT UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP RIGHT....DOWN DOWN RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN

....DOWN DOWN RIGHT UP UP LEFT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN

LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP

UP RIGHT DOWN LEFT UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN

DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP UP RIGHT DOWN DOWN LEFT UP RIGHT)

3. IDS

1. (ids '(1 3 4 8 6 2 7 0 5))

NODE-LIST-LENGTH: 20

TOTAL NODES VISITED: 34

(UP RIGHT UP LEFT DOWN)

2. (ids '(2 8 1 0 4 3 7 6 5))

NODE-LIST-LENGTH: 166

TOTAL NODES VISITED: 306

(UP RIGHT RIGHT DOWN LEFT LEFT UP RIGHT DOWN)

3. (ids '(5 6 7 4 0 8 3 2 1))

NO RESULT

4. GREEDY

1. (greedy '(1 3 4 8 6 2 7 0 5) 'h1)

NODE-LIST-LENGTH: 8

TOTAL NODES VISITED: 7

GREEDY-BEST-FIRST-SEARCH PATH IS - (UP RIGHT UP LEFT DOWN)

(greedy '(1 3 4 8 6 2 7 0 5) 'h2)

NODE-LIST-LENGTH: 7

TOTAL NODES VISITED: 6

GREEDY-BEST-FIRST-SEARCH PATH IS - (UP RIGHT UP LEFT DOWN)

2. (greedy '(2 8 1 0 4 3 7 6 5) 'h1)

NODE-LIST-LENGTH: 51

TOTAL NODES VISITED: 68

GREEDY-BEST-FIRST-SEARCH PATH IS - (UP RIGHT RIGHT DOWN LEFT LEFT UP RIGHT DOWN)

* (greedy '(2 8 1 0 4 3 7 6 5) 'h2)

NODE-LIST-LENGTH: 9

TOTAL NODES VISITED: 10

GREEDY-BEST-FIRST-SEARCH PATH IS - (UP RIGHT RIGHT DOWN LEFT LEFT UP RIGHT DOWN)

3. (greedy '(5 6 7 4 0 8 3 2 1) 'h1)

NODE-LIST-LENGTH: 945

TOTAL NODES VISITED: 1521

GREEDY-BEST-FIRST-SEARCH PATH IS - (UP LEFT DOWN DOWN RIGHT UP RIGHT UP LEFT

LEFT DOWN RIGHT RIGHT UP LEFT DOWN DOWN

RIGHT UP UP LEFT LEFT DOWN DOWN RIGHT UP

UP RIGHT DOWN LEFT LEFT UP RIGHT DOWN

RIGHT UP LEFT LEFT DOWN RIGHT UP RIGHT

DOWN LEFT LEFT UP RIGHT DOWN RIGHT UP LEFT

DOWN LEFT DOWN RIGHT UP UP LEFT DOWN RIGHT

DOWN LEFT UP RIGHT)

* (greedy '(5 6 7 4 0 8 3 2 1) 'h2)

NODE-LIST-LENGTH: 211

TOTAL NODES VISITED: 312

GREEDY-BEST-FIRST-SEARCH PATH IS - (UP LEFT DOWN DOWN RIGHT UP UP LEFT DOWN

DOWN RIGHT UP UP LEFT DOWN RIGHT RIGHT UP

LEFT LEFT DOWN RIGHT RIGHT DOWN LEFT UP

RIGHT UP LEFT DOWN LEFT UP RIGHT RIGHT

DOWN LEFT LEFT DOWN RIGHT UP RIGHT DOWN

LEFT LEFT UP RIGHT RIGHT DOWN LEFT UP

RIGHT DOWN LEFT LEFT UP RIGHT RIGHT DOWN

LEFT UP LEFT DOWN RIGHT RIGHT UP LEFT)

5. ASTAR

1. (Astar '(1 3 4 8 6 2 7 0 5) 'h1)

NODE-LIST-LENGTH: 8

TOTAL NODES VISITED: 7

A* SEARCH PATH IS - (UP RIGHT UP LEFT DOWN)

* (Astar '(1 3 4 8 6 2 7 0 5) 'h2)

NODE-LIST-LENGTH: 7

TOTAL NODES VISITED: 6

A* SEARCH PATH IS - (UP RIGHT UP LEFT DOWN)

2.* (Astar '(2 8 1 0 4 3 7 6 5) 'h1)

NODE-LIST-LENGTH: 28

TOTAL NODES VISITED: 32

A* SEARCH PATH IS - (UP RIGHT RIGHT DOWN LEFT LEFT UP RIGHT DOWN)

NIL

* (Astar '(2 8 1 0 4 3 7 6 5) 'h2)

NODE-LIST-LENGTH: 13

TOTAL NODES VISITED: 16

A* SEARCH PATH IS - (UP RIGHT RIGHT DOWN LEFT LEFT UP RIGHT DOWN)

3. (Astar '(5 6 7 4 0 8 3 2 1) 'h1)

NO OUTPUT

*(Astar '(5 6 7 4 0 8 3 2 1) 'h2)

NODE-LIST-LENGTH: 1888

TOTAL NODES VISITED: 3766

A* SEARCH PATH IS - (UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT LEFT DOWN DOWN

RIGHT RIGHT UP UP LEFT LEFT DOWN DOWN RIGHT RIGHT UP UP

LEFT LEFT DOWN DOWN RIGHT UP)

6. IDASTAR

1. (idastar '(1 3 4 8 6 2 7 0 5) 'h1)

DEPTH OF RECURSION - 5

(UP RIGHT UP LEFT DOWN)

* (idastar '(1 3 4 8 6 2 7 0 5) 'h2)

DEPTH OF RECURSION - 5

(UP RIGHT UP LEFT DOWN)

2. (idastar '(2 8 1 0 4 3 7 6 5) 'h1)

DEPTH OF RECURSION - 9

(UP RIGHT RIGHT DOWN LEFT LEFT UP RIGHT DOWN)

* (idastar '(2 8 1 0 4 3 7 6 5) 'h2)

DEPTH OF RECURSION - 9

(UP RIGHT RIGHT DOWN LEFT LEFT UP RIGHT DOWN)

3.(idastar '(5 6 7 4 0 8 3 2 1) 'h2)

DEPTH OF RECURSION - 30
(UP LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT
LEFT DOWN DOWN RIGHT RIGHT UP UP LEFT LEFT DOWN DOWN RIGHT UP)
(idastar '(5 6 7 4 0 8 3 2 1) 'h1)
NO OUTPUT