**Sample Depth 10**

\*\*\*8-puzzle Solver Using A\* Algorithms\*\*\*\*

Enter 0 to write inputs,

Enter 1 to take input from a text file:

0

Enter 1 for h1 heuristic, 2 for h2 heuristic:

1

Enter unique numbers from 0 to 9

1 2 7 3 4 5 6 8 0

1 2 7

3 4 5

6 8 0

Depth: 0

1 2 7

3 4 5

6 0 8

Depth: 1

1 2 7

3 4 0

6 8 5

Depth: 1

1 2 7

3 4 5

6 8 0

Depth: 2

1 2 7

3 4 5

6 8 0

Depth: 2

1 2 7

3 4 5

0 6 8

Depth: 2

1 2 7

3 0 5

6 4 8

Depth: 2

1 2 7

3 4 5

6 0 8

Depth: 3

1 2 7

3 4 5

6 0 8

Depth: 3

1 2 0

3 4 7

6 8 5

Depth: 2

1 0 7

3 2 5

6 4 8

Depth: 3

1 0 2

3 4 7

6 8 5

Depth: 3

0 1 7

3 2 5

6 4 8

Depth: 4

0 1 2

3 4 7

6 8 5

Depth: 4

1 2 7

3 5 0

6 4 8

Depth: 3

1 7 0

3 2 5

6 4 8

Depth: 4

1 2 7

0 4 5

3 6 8

Depth: 3

1 2 7

0 3 5

6 4 8

Depth: 3

1 2 7

3 4 5

0 6 8

Depth: 4

1 2 7

3 0 5

6 4 8

Depth: 4

1 2 7

3 0 5

6 4 8

Depth: 4

1 2 7

3 0 4

6 8 5

Depth: 2

1 2 7

3 0 5

6 4 8

Depth: 4

1 2 7

3 4 0

6 8 5

Depth: 3

1 2 7

3 4 0

6 8 5

Depth: 3

3 1 7

0 2 5

6 4 8

Depth: 5

0 2 7

1 4 5

3 6 8

Depth: 4

1 0 7

3 2 4

6 8 5

Depth: 3

0 1 7

3 2 5

6 4 8

Depth: 6

1 2 0

3 4 7

6 8 5

Depth: 4

1 2 7

3 8 4

6 0 5

Depth: 3

0 1 7

3 2 4

6 8 5

Depth: 4

1 0 7

3 2 5

6 4 8

Depth: 5

3 1 2

0 4 7

6 8 5

Depth: 5

0 2 7

1 3 5

6 4 8

Depth: 4

0 1 2

3 4 7

6 8 5

Depth: 6

1 0 2

3 4 7

6 8 5

Depth: 5

1 4 2

3 0 7

6 8 5

Depth: 4

1 2 0

3 5 7

6 4 8

Depth: 4

1 0 7

3 2 5

6 4 8

Depth: 5

1 0 2

3 4 7

6 8 5

Depth: 5

1 0 2

3 5 7

6 4 8

Depth: 5

0 1 2

3 5 7

6 4 8

Depth: 6

1 5 2

3 0 7

6 4 8

Depth: 6

1 2 7

0 3 4

6 8 5

Depth: 3

1 7 5

3 2 0

6 4 8

Depth: 5

1 2 7

6 3 5

0 4 8

Depth: 4

1 2 7

3 5 8

6 4 0

Depth: 4

1 2 7

3 0 4

6 8 5

Depth: 4

1 7 0

3 2 5

6 4 8

Depth: 6

1 2 7

0 3 5

6 4 8

Depth: 5

3 1 7

2 0 5

6 4 8

Depth: 6

1 2 7

3 5 0

6 4 8

Depth: 5

2 0 7

1 4 5

3 6 8

Depth: 5

3 1 7

2 4 5

6 0 8

Depth: 7

1 2 7

3 8 4

6 5 0

Depth: 4

1 2 7

3 0 4

6 8 5

Depth: 4

1 2 7

3 0 4

6 8 5

Depth: 4

1 2 7

0 4 5

3 6 8

Depth: 5

1 7 0

3 2 4

6 8 5

Depth: 4

1 4 2

3 7 0

6 8 5

Depth: 5

1 4 2

3 8 7

6 0 5

Depth: 5

1 4 2

3 7 5

6 8 0

Depth: 6

1 2 7

3 5 0

6 4 8

Depth: 5

1 4 2

3 7 5

6 0 8

Depth: 7

2 0 7

1 3 5

6 4 8

Depth: 5

1 4 2

3 0 5

6 7 8

Depth: 8

1 2 7

0 3 5

6 4 8

Depth: 5

1 2 7

4 0 5

3 6 8

Depth: 4

1 0 2

3 4 5

6 7 8

Depth: 9

1 5 2

3 4 7

6 0 8

Depth: 7

1 2 7

0 4 5

3 6 8

Depth: 5

0 1 2

3 4 5

6 7 8

Depth: 10

Solution found

0 1 2

3 4 5

6 7 8

Depth: 10

Total execution time: 13770ms

Total search cost (nodes generated): 206

Try again? Enter 1 for yes, other numbers for no

1

Enter 0 to write inputs,

Enter 1 to take input from a text file:

0

Enter 1 for h1 heuristic, 2 for h2 heuristic:

2

Enter unique numbers from 0 to 9

1 2 7 3 4 5 6 8 0

1 2 7

3 4 5

6 8 0

Depth: 0

1 2 7

3 4 5

6 0 8

Depth: 1

1 2 7

3 4 0

6 8 5

Depth: 1

1 2 7

3 4 5

6 8 0

Depth: 2

1 2 7

3 4 5

6 8 0

Depth: 2

1 2 0

3 4 7

6 8 5

Depth: 2

1 2 7

3 4 5

0 6 8

Depth: 2

1 0 2

3 4 7

6 8 5

Depth: 3

1 2 7

3 4 5

6 0 8

Depth: 3

1 2 7

3 0 5

6 4 8

Depth: 2

0 1 2

3 4 7

6 8 5

Depth: 4

1 2 7

3 4 5

6 0 8

Depth: 3

3 1 2

0 4 7

6 8 5

Depth: 5

1 0 2

3 4 7

6 8 5

Depth: 5

1 2 7

0 4 5

3 6 8

Depth: 3

1 2 7

3 0 4

6 8 5

Depth: 2

1 2 7

3 4 5

0 6 8

Depth: 4

1 0 7

3 2 5

6 4 8

Depth: 3

1 2 7

3 4 0

6 8 5

Depth: 3

1 2 7

3 5 0

6 4 8

Depth: 3

1 7 0

3 2 5

6 4 8

Depth: 4

1 2 7

3 0 5

6 4 8

Depth: 4

1 2 7

3 0 5

6 4 8

Depth: 4

1 2 0

3 5 7

6 4 8

Depth: 4

1 2 7

3 4 0

6 8 5

Depth: 3

0 1 2

3 4 7

6 8 5

Depth: 6

1 0 2

3 5 7

6 4 8

Depth: 5

1 2 0

3 4 7

6 8 5

Depth: 4

0 1 2

3 5 7

6 4 8

Depth: 6

1 4 2

3 0 7

6 8 5

Depth: 4

1 2 7

0 3 5

6 4 8

Depth: 3

1 0 2

3 4 7

6 8 5

Depth: 5

1 4 2

3 7 0

6 8 5

Depth: 5

1 2 7

3 0 5

6 4 8

Depth: 4

0 1 7

3 2 5

6 4 8

Depth: 4

1 4 2

3 7 5

6 8 0

Depth: 6

1 4 2

3 7 5

6 0 8

Depth: 7

1 4 2

3 0 5

6 7 8

Depth: 8

1 0 2

3 4 5

6 7 8

Depth: 9

0 1 2

3 4 5

6 7 8

Depth: 10

Solution found

0 1 2

3 4 5

6 7 8

Depth: 10

Total execution time: 6986ms

Total search cost (nodes generated): 110

Try again? Enter 1 for yes, other numbers for no

4

Bye!