

# CS 4200 Project 1

Select:

[1] Test a Puzzle

[2] Exit

1

Select Input Method

[1] Random

[2] Input

2

Enter a Puzzle (row by row):

Row 1: 125

Row 2: 348

Row 3: 670

Puzzle:

1 2 5

3 4 8

6 7 0

Select H Function:

[1] H1

[2] H2

[3] Both (H1 then H2)

1

Step: 1

1 2 5

3 4 0

6 7 8

Step: 2

1 2 0

3 4 5

6 7 8

Step: 3

1 0 2

3 4 5

6 7 8

Step: 4

0 1 2

3 4 5

6 7 8

H1 Search Cost: 10

H1 Runtime: 0.00 seconds

Select:

[1] Test a Puzzle

[2] Exit

1

Select Input Method

[1] Random

[2] Input

2

Enter a Puzzle (row by row):

Row 1: 125

Row 2: 408

Row 3: 367

Puzzle:

1 2 5

4 0 8

3 6 7

Select H Function:

[1] H1

[2] H2

[3] Both (H1 then H2)

2

Step: 1

1 2 5

0 4 8

3 6 7

Step: 2

1 2 5

3 4 8

0 6 7

Step: 3

1 2 5

3 4 8

6 0 7

Step: 4

1 2 5

3 4 8

6 7 0

Step: 5

1 2 5

3 4 0

6 7 8

Step: 6

1 2 0

3 4 5

6 7 8

Step: 7

1 0 2

3 4 5

6 7 8

Step: 8

0 1 2

3 4 5

6 7 8

H2 Search Cost: 22

H2 Runtime: 0.00 seconds

Select:

[1] Test a Puzzle

[2] Exit

1

Select Input Method

[1] Random

[2] Input

2

Enter a Puzzle (row by row):

Row 1: 265

Row 2: 807

Row 3: 143

Puzzle:

2 6 5

8 0 7

1 4 3

Select H Function:

[1] H1

[2] H2

[3] Both (H1 then H2)

1

Step: 1

2 6 5

0 8 7

1 4 3

Step: 2

2 6 5

1 8 7

0 4 3

Step: 3

2 6 5

1 8 7

4 0 3

Step: 4

2 6 5

1 8 7

4 3 0

Step: 5

2 6 5

1 8 0

4 3 7

Step: 6

2 6 5

1 0 8

4 3 7

Step: 7

2 0 5

1 6 8

4 3 7

Step: 8

0 2 5

1 6 8

4 3 7

Step: 9

1 2 5

0 6 8

4 3 7

Step: 10

1 2 5

6 0 8

4 3 7

Step: 11

1 2 5

6 3 8

4 0 7

Step: 12

1 2 5

6 3 8

0 4 7

Step: 13

1 2 5

0 3 8

6 4 7

Step: 14

1 2 5

3 0 8

6 4 7

Step: 15

1 2 5

3 4 8

6 0 7

Step: 16

1 2 5

3 4 8

6 7 0

Step: 17

1 2 5

3 4 0

6 7 8

Step: 18

1 2 0

3 4 5

6 7 8

Step: 19

1 0 2

3 4 5

6 7 8

Step: 20

0 1 2

3 4 5

6 7 8

H1 Search Cost: 9557

H1 Runtime: 0.02 seconds

Select:

[1] Test a Puzzle

[2] Exit

1

Select Input Method

[1] Random

[2] Input

1

Puzzle:

1 8 7

0 3 4

5 2 6

Select H Function:

[1] H1



[2] H2

[3] Both (H1 then H2)

2

Step: 1

1 8 7

3 0 4

5 2 6

Step: 2

1 0 7

3 8 4

5 2 6

Step: 3

1 7 0

3 8 4

5 2 6

Step: 4

1 7 4

3 8 0

5 2 6

Step: 5

1 7 4

3 0 8

5 2 6

Step: 6

1 7 4

3 2 8

5 0 6

Step: 7

1 7 4

3 2 8

5 6 0

Step: 8

1 7 4

3 2 0

5 6 8

Step: 9

1 7 4

3 0 2

5 6 8

Step: 10

1 0 4

3 7 2

5 6 8

Step: 11

0 1 4

3 7 2

5 6 8

Step: 12

3 1 4

0 7 2

5 6 8

Step: 13

3 1 4

5 7 2

0 6 8

Step: 14

3 1 4

5 7 2

6 0 8

Step: 15

3 1 4

5 0 2

6 7 8

Step: 16

3 1 4

0 5 2

6 7 8

Step: 17

0 1 4

3 5 2

6 7 8

Step: 18

1 0 4

3 5 2

6 7 8

Step: 19

1 4 0

3 5 2

6 7 8

Step: 20

1 4 2

3 5 0

6 7 8

Step: 21

1 4 2

3 0 5

6 7 8

Step: 22

1 0 2

3 4 5

6 7 8

Step: 23

0 1 2

3 4 5

6 7 8

H2 Search Cost: 954

H2 Runtime: 0.00 seconds

Select:

[1] Test a Puzzle

[2] Exit

2