

# BFS - Informed Search



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 Department of Computer Science and Engineering  
 Data Science



$h(n)$  = no. of misplaced tiles

Semester : \_\_\_\_\_

Subject : \_\_\_\_\_

Academic Year: 20 - 20

G

I

$h(n) = 8$

1	4	2
6	5	8
7	3	0

0	1	2
3	4	5
6	7	8

1	4	2
6	5	0
7	3	8

$h(n) = 7$

1	4	2
6	5	8
7	0	3

$h(n) = 8$

1	4	0
6	5	2
7	3	8

$h(n) = 8$

1	4	2
6	0	5
7	3	8

$h(n) = 6$

1	0	2
6	4	5
7	3	8

$h(n) = 5$

1	4	2
0	6	5
7	3	8

$h(n) = 6$

1	4	2
6	3	5
7	0	8

$h(n) = 6$



Semester : \_\_\_\_\_

Subject : \_\_\_\_\_

Academic Year: 20 - 20

1	0	2
6	4	5
7	3	8

$h(n) = 5$

0	1	2
6	4	5
7	3	8

$h(n) = 3$

1	2	0
6	4	5
7	3	8

$h(n) = 6$

6	1	2
0	4	5
7	3	8





$h(n)$  = no. of tiles on correct position no. of misplaced

Semester : \_\_\_\_\_

Subject : \_\_\_\_\_

Academic Year: 20 - 20

$h(n) = 4$

2	8	3
1	6	4
7		5

$h(n) = 0$

1	2	3
8		4
7	6	5

2	8	3
1		4
7	6	5

$h(n) = 3$

2	8	3
1	6	4
	7	5

$h(n) = 5$

2	8	3
1	6	4
7	5	

$h(n) = 5$

2		3
1	8	4
7	6	5

$h(n) = 3$

2	8	3
	1	4
7	6	5

$h(n) = 3$

2	8	3
1	4	
7	6	5

$h(n) = 4$

	2	3
1	8	4
7	6	5

$h(n) = 2$

2	3	
1	8	4
7	6	5

$h(n) = 4$

	8	3
2	1	4
7	6	5

$h(n) = 3$

2	8	3
7	1	4
	6	5

$h(n) = 4$

1	2	3
	8	4
7	6	5

$h(n) = 1$

1	2	3
8		4
7	6	5

$h(n) = 0$  (Goal state)

1	2	3
7	8	4
	6	5

$h(n) = 2$