```
Enter the Current State
7 2 4
5 0 6
8 3 1
Enter the Goal State
4 5 6
7 8 0
Enter the heuristic number that you want to proceed with
1. Manhattan
2. Misplaced Tiles
2
Level 0 - [[7,2,4][5,0,6][8,3,1]]
Node Chosen for Level 1 - [[7,2,4][5,0,6][8,3,1]]
Generated Nodes:
[[7,0,4][5,2,6][8,3,1]] - f(n) = 1 + 7 = 8
[[7,2,4][5,6,0][8,3,1]] - f(n) = 1 + 7 = 8
[[7,2,4][0,5,6][8,3,1]] - f(n) = 1 + 5 = 6
[[7,2,4][5,3,6][8,0,1]] - f(n) = 1 + 6 = 7
Node Chosen for Level 2 - [[7,2,4][0,5,6][8,3,1]]
Generated Nodes:
[[0,2,4][7,5,6][8,3,1]] - f(n) = 2 + 5 = 7
[[7,2,4][5,0,6][8,3,1]] - Already visited Node!
[[7,2,4][8,5,6][0,3,1]] - f(n) = 2 + 5 = 7
Node Chosen for Level 2 - [[7,2,4][5,3,6][8,0,1]]
Generated Nodes:
[[7,2,4][5,0,6][8,3,1]] - Already visited Node!
[[7,2,4][5,3,6][8,1,0]] - f(n) = 2 + 6 = 8
[[7,2,4][5,3,6][0,8,1]] - f(n) = 2 + 5 = 7
Node Chosen for Level 3 - [[0,2,4][7,5,6][8,3,1]]
Generated Nodes:
[[2,0,4][7,5,6][8,3,1]] - f(n) = 3 + 6 = 9
[[7,2,4][0,5,6][8,3,1]] - Already visited Node!
Node Chosen for Level 3 - [[7,2,4][8,5,6][0,3,1]]
Generated Nodes:
```

8-Puzzle problem using A* search Algorithm

```
[[7,2,4][0,5,6][8,3,1]] - Already visited Node!
[[7,2,4][8,5,6][3,0,1]] - f(n) = 3 + 5 = 8
Node Chosen for Level 3 - [[7,2,4][5,3,6][0,8,1]]
Generated Nodes:
[[7,2,4][0,3,6][5,8,1]] - f(n) = 3 + 5 = 8
[[7,2,4][5,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 2 - [[7,0,4][5,2,6][8,3,1]]
Generated Nodes:
[[7,4,0][5,2,6][8,3,1]] - f(n) = 2 + 7 = 9
[[0,7,4][5,2,6][8,3,1]] - f(n) = 2 + 7 = 9
[[7,2,4][5,0,6][8,3,1]] - Already visited Node!
Node Chosen for Level 2 - [[7,2,4][5,6,0][8,3,1]]
Generated Nodes:
[[7,2,0][5,6,4][8,3,1]] - f(n) = 2 + 7 = 9
[[7,2,4][5,0,6][8,3,1]] - Already visited Node!
[[7,2,4][5,6,1][8,3,0]] - f(n) = 2 + 7 = 9
Node Chosen for Level 3 - [[7,2,4][5,3,6][8,1,0]]
Generated Nodes:
[[7,2,4][5,3,0][8,1,6]] - f(n) = 3 + 7 = 10
[[7,2,4][5,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 4 - [[7,2,4][8,5,6][3,0,1]]
Generated Nodes:
[[7,2,4][8,0,6][3,5,1]] - f(n) = 4 + 6 = 10
[[7,2,4][8,5,6][3,1,0]] - f(n) = 4 + 5 = 9
[[7,2,4][8,5,6][0,3,1]] - Already visited Node!
Node Chosen for Level 4 - [[7,2,4][0,3,6][5,8,1]]
Generated Nodes:
[[0,2,4][7,3,6][5,8,1]] - f(n) = 4 + 5 = 9
[[7,2,4][3,0,6][5,8,1]] - f(n) = 4 + 5 = 9
[[7,2,4][5,3,6][0,8,1]] - Already visited Node!
Node Chosen for Level 4 - [[2,0,4][7,5,6][8,3,1]]
Generated Nodes:
```

```
[[2,4,0][7,5,6][8,3,1]] - f(n) = 4 + 6 = 10
[[0,2,4][7,5,6][8,3,1]] - Already visited Node!
[[2,5,4][7,0,6][8,3,1]] - f(n) = 4 + 7 = 11
Node Chosen for Level 3 - [[7,4,0][5,2,6][8,3,1]]
Generated Nodes:
[[7,0,4][5,2,6][8,3,1]] - Already visited Node!
[[7,4,6][5,2,0][8,3,1]] - f(n) = 3 + 8 = 11
Node Chosen for Level 3 - [[0,7,4][5,2,6][8,3,1]]
Generated Nodes:
[[7,0,4][5,2,6][8,3,1]] - Already visited Node!
[[5,7,4][0,2,6][8,3,1]] - f(n) = 3 + 7 = 10
Node Chosen for Level 3 - [[7,2,0][5,6,4][8,3,1]]
Generated Nodes:
[[7,0,2][5,6,4][8,3,1]] - f(n) = 3 + 8 = 11
[[7,2,4][5,6,0][8,3,1]] - Already visited Node!
Node Chosen for Level 3 - [[7,2,4][5,6,1][8,3,0]]
Generated Nodes:
[[7,2,4][5,6,0][8,3,1]] - Already visited Node!
[[7,2,4][5,6,1][8,0,3]] - f(n) = 3 + 7 = 10
Node Chosen for Level 5 - [[7,2,4][8,5,6][3,1,0]]
Generated Nodes:
[[7,2,4][8,5,0][3,1,6]] - f(n) = 5 + 6 = 11
[[7,2,4][8,5,6][3,0,1]] - Already visited Node!
Node Chosen for Level 5 - [[0,2,4][7,3,6][5,8,1]]
Generated Nodes:
[[2,0,4][7,3,6][5,8,1]] - f(n) = 5 + 6 = 11
[[7,2,4][0,3,6][5,8,1]] - Already visited Node!
Node Chosen for Level 5 - [[7,2,4][3,0,6][5,8,1]]
Generated Nodes:
[[7,0,4][3,2,6][5,8,1]] - f(n) = 5 + 6 = 11
```

```
[[7,2,4][3,6,0][5,8,1]] - f(n) = 5 + 6 = 11
[[7,2,4][0,3,6][5,8,1]] - Already visited Node!
[[7,2,4][3,8,6][5,0,1]] - f(n) = 5 + 6 = 11
Node Chosen for Level 4 - [[7,2,4][5,3,0][8,1,6]]
Generated Nodes:
[[7,2,0][5,3,4][8,1,6]] - f(n) = 4 + 7 = 11
[[7,2,4][5,0,3][8,1,6]] - f(n) = 4 + 7 = 11
[[7,2,4][5,3,6][8,1,0]] - Already visited Node!
Node Chosen for Level 5 - [[7,2,4][8,0,6][3,5,1]]
Generated Nodes:
[[7,0,4][8,2,6][3,5,1]] - f(n) = 5 + 7 = 12
[[7,2,4][8,6,0][3,5,1]] - f(n) = 5 + 7 = 12
[[7,2,4][0,8,6][3,5,1]] - f(n) = 5 + 6 = 11
[[7,2,4][8,5,6][3,0,1]] - Already visited Node!
Node Chosen for Level 5 - [[2,4,0][7,5,6][8,3,1]]
Generated Nodes:
[[2,0,4][7,5,6][8,3,1]] - Already visited Node!
[[2,4,6][7,5,0][8,3,1]] - f(n) = 5 + 7 = 12
Node Chosen for Level 4 - [[5,7,4][0,2,6][8,3,1]]
Generated Nodes:
[[0,7,4][5,2,6][8,3,1]] - Already visited Node!
[[5,7,4][2,0,6][8,3,1]] - f(n) = 4 + 7 = 11
[[5,7,4][8,2,6][0,3,1]] - f(n) = 4 + 7 = 11
Node Chosen for Level 4 - [[7,2,4][5,6,1][8,0,3]]
Generated Nodes:
[[7,2,4][5,0,1][8,6,3]] - f(n) = 4 + 7 = 11
[[7,2,4][5,6,1][8,3,0]] - Already visited Node!
[[7,2,4][5,6,1][0,8,3]] - f(n) = 4 + 6 = 10
Node Chosen for Level 5 - [[7,2,4][5,6,1][0,8,3]]
Generated Nodes:
[[7,2,4][0,6,1][5,8,3]] - f(n) = 5 + 6 = 11
[[7,2,4][5,6,1][8,0,3]] - Already visited Node!
Node Chosen for Level 5 - [[2,5,4][7,0,6][8,3,1]]
```

```
Generated Nodes:
[[2,0,4][7,5,6][8,3,1]] - Already visited Node!
[[2,5,4][7,6,0][8,3,1]] - f(n) = 5 + 8 = 13
[[2,5,4][0,7,6][8,3,1]] - f(n) = 5 + 7 = 12
[[2,5,4][7,3,6][8,0,1]] - f(n) = 5 + 7 = 12
Node Chosen for Level 4 - [[7,4,6][5,2,0][8,3,1]]
Generated Nodes:
[[7,4,0][5,2,6][8,3,1]] - Already visited Node!
[[7,4,6][5,0,2][8,3,1]] - f(n) = 4 + 8 = 12
[[7,4,6][5,2,1][8,3,0]] - f(n) = 4 + 8 = 12
Node Chosen for Level 4 - [[7,0,2][5,6,4][8,3,1]]
Generated Nodes:
[[7,2,0][5,6,4][8,3,1]] - Already visited Node!
[[0,7,2][5,6,4][8,3,1]] - f(n) = 4 + 8 = 12
[[7,6,2][5,0,4][8,3,1]] - f(n) = 4 + 8 = 12
Node Chosen for Level 6 - [[7,2,4][8,5,0][3,1,6]]
Generated Nodes:
[[7,2,0][8,5,4][3,1,6]] - f(n) = 6 + 6 = 12
[[7,2,4][8,0,5][3,1,6]] - f(n) = 6 + 7 = 13
[[7,2,4][8,5,6][3,1,0]] - Already visited Node!
Node Chosen for Level 6 - [[2,0,4][7,3,6][5,8,1]]
Generated Nodes:
[[2,4,0][7,3,6][5,8,1]] - f(n) = 6 + 6 = 12
[[0,2,4][7,3,6][5,8,1]] - Already visited Node!
[[2,3,4][7,0,6][5,8,1]] - f(n) = 6 + 6 = 12
Node Chosen for Level 6 - [[7,0,4][3,2,6][5,8,1]]
Generated Nodes:
[[7,4,0][3,2,6][5,8,1]] - f(n) = 6 + 6 = 12
[[0,7,4][3,2,6][5,8,1]] - f(n) = 6 + 6 = 12
[[7,2,4][3,0,6][5,8,1]] - Already visited Node!
```

Node Chosen for Level 6 - [[7,2,4][3,6,0][5,8,1]]

Generated Nodes :

```
[[7,2,0][3,6,4][5,8,1]] - f(n) = 6 + 6 = 12
[[7,2,4][3,0,6][5,8,1]] - Already visited Node!
[[7,2,4][3,6,1][5,8,0]] - f(n) = 6 + 6 = 12
Node Chosen for Level 6 - [[7,2,4][3,8,6][5,0,1]]
Generated Nodes:
[[7,2,4][3,0,6][5,8,1]] - Already visited Node!
[[7,2,4][3,8,6][5,1,0]] - f(n) = 6 + 6 = 12
[[7,2,4][3,8,6][0,5,1]] - f(n) = 6 + 6 = 12
Node Chosen for Level 5 - [[7,2,0][5,3,4][8,1,6]]
Generated Nodes:
[[7,0,2][5,3,4][8,1,6]] - f(n) = 5 + 8 = 13
[[7,2,4][5,3,0][8,1,6]] - Already visited Node!
Node Chosen for Level 5 - [[7,2,4][5,0,3][8,1,6]]
Generated Nodes:
[[7,0,4][5,2,3][8,1,6]] - f(n) = 5 + 8 = 13
[[7,2,4][5,3,0][8,1,6]] - Already visited Node!
[[7,2,4][0,5,3][8,1,6]] - f(n) = 5 + 6 = 11
[[7,2,4][5,1,3][8,0,6]] - f(n) = 5 + 7 = 12
Node Chosen for Level 6 - [[7,2,4][0,8,6][3,5,1]]
Generated Nodes:
[[0,2,4][7,8,6][3,5,1]] - f(n) = 6 + 6 = 12
[[7,2,4][8,0,6][3,5,1]] - Already visited Node!
[[7,2,4][3,8,6][0,5,1]] - f(n) = 6 + 6 = 12
Node Chosen for Level 5 - [[5,7,4][2,0,6][8,3,1]]
Generated Nodes:
[[5,0,4][2,7,6][8,3,1]] - f(n) = 5 + 7 = 12
[[5,7,4][2,6,0][8,3,1]] - f(n) = 5 + 8 = 13
[[5,7,4][0,2,6][8,3,1]] - Already visited Node!
[[5,7,4][2,3,6][8,0,1]] - f(n) = 5 + 7 = 12
Node Chosen for Level 5 - [[5,7,4][8,2,6][0,3,1]]
Generated Nodes:
[[5,7,4][0,2,6][8,3,1]] - Already visited Node!
[[5,7,4][8,2,6][3,0,1]] - f(n) = 5 + 7 = 12
```

```
Node Chosen for Level 5 - [[7,2,4][5,0,1][8,6,3]]
Generated Nodes:
[[7,0,4][5,2,1][8,6,3]] - f(n) = 5 + 8 = 13
[[7,2,4][5,1,0][8,6,3]] - f(n) = 5 + 7 = 12
[[7,2,4][0,5,1][8,6,3]] - f(n) = 5 + 6 = 11
[[7,2,4][5,6,1][8,0,3]] - Already visited Node!
Node Chosen for Level 6 - [[7,2,4][0,6,1][5,8,3]]
Generated Nodes:
[[0,2,4][7,6,1][5,8,3]] - f(n) = 6 + 6 = 12
[[7,2,4][6,0,1][5,8,3]] - f(n) = 6 + 6 = 12
[[7,2,4][5,6,1][0,8,3]] - Already visited Node!
Node Chosen for Level 6 - [[7,2,4][0,5,3][8,1,6]]
Generated Nodes:
[[0,2,4][7,5,3][8,1,6]] - f(n) = 6 + 6 = 12
[[7,2,4][5,0,3][8,1,6]] - Already visited Node!
[[7,2,4][8,5,3][0,1,6]] - f(n) = 6 + 6 = 12
Node Chosen for Level 6 - [[7,2,4][0,5,1][8,6,3]]
Generated Nodes:
[[0,2,4][7,5,1][8,6,3]] - f(n) = 6 + 6 = 12
[[7,2,4][5,0,1][8,6,3]] - Already visited Node!
[[7,2,4][8,5,1][0,6,3]] - f(n) = 6 + 6 = 12
Node Chosen for Level 6 - [[7,0,4][8,2,6][3,5,1]]
Generated Nodes:
[[7,4,0][8,2,6][3,5,1]] - f(n) = 6 + 7 = 13
[[0,7,4][8,2,6][3,5,1]] - f(n) = 6 + 7 = 13
[[7,2,4][8,0,6][3,5,1]] - Already visited Node!
Node Chosen for Level 6 - [[7,2,4][8,6,0][3,5,1]]
Generated Nodes:
[[7,2,0][8,6,4][3,5,1]] - f(n) = 6 + 7 = 13
[[7,2,4][8,0,6][3,5,1]] - Already visited Node!
[[7,2,4][8,6,1][3,5,0]] - f(n) = 6 + 7 = 13
Node Chosen for Level 6 - [[2,4,6][7,5,0][8,3,1]]
```

Generated Nodes:

```
[[2,4,0][7,5,6][8,3,1]] - Already visited Node!
[[2,4,6][7,0,5][8,3,1]] - f(n) = 6 + 8 = 14
[[2,4,6][7,5,1][8,3,0]] - f(n) = 6 + 7 = 13
Node Chosen for Level 6 - [[2,5,4][0,7,6][8,3,1]]
Generated Nodes:
[[0,5,4][2,7,6][8,3,1]] - f(n) = 6 + 7 = 13
[[2,5,4][7,0,6][8,3,1]] - Already visited Node!
[[2,5,4][8,7,6][0,3,1]] - f(n) = 6 + 7 = 13
Node Chosen for Level 6 - [[2,5,4][7,3,6][8,0,1]]
Generated Nodes:
[[2,5,4][7,0,6][8,3,1]] - Already visited Node!
[[2,5,4][7,3,6][8,1,0]] - f(n) = 6 + 7 = 13
[[2,5,4][7,3,6][0,8,1]] - f(n) = 6 + 6 = 12
Node Chosen for Level 5 - [[7,4,6][5,0,2][8,3,1]]
Generated Nodes:
[[7,0,6][5,4,2][8,3,1]] - f(n) = 5 + 8 = 13
[[7,4,6][5,2,0][8,3,1]] - Already visited Node!
[[7,4,6][0,5,2][8,3,1]] - f(n) = 5 + 7 = 12
[[7,4,6][5,3,2][8,0,1]] - f(n) = 5 + 8 = 13
Node Chosen for Level 5 - [[7,4,6][5,2,1][8,3,0]]
Generated Nodes:
[[7,4,6][5,2,0][8,3,1]] - Already visited Node!
[[7,4,6][5,2,1][8,0,3]] - f(n) = 5 + 8 = 13
Node Chosen for Level 5 - [[0,7,2][5,6,4][8,3,1]]
Generated Nodes:
[[7,0,2][5,6,4][8,3,1]] - Already visited Node!
[[5,7,2][0,6,4][8,3,1]] - f(n) = 5 + 8 = 13
Node Chosen for Level 5 - [[7,6,2][5,0,4][8,3,1]]
Generated Nodes:
[[7,0,2][5,6,4][8,3,1]] - Already visited Node!
[[7,6,2][5,4,0][8,3,1]] - f(n) = 5 + 8 = 13
[[7,6,2][0,5,4][8,3,1]] - f(n) = 5 + 7 = 12
[[7,6,2][5,3,4][8,0,1]] - f(n) = 5 + 8 = 13
```

```
Node Chosen for Level 7 - [[7,2,0][8,5,4][3,1,6]]
Generated Nodes:
[[7,0,2][8,5,4][3,1,6]] - f(n) = 7 + 7 = 14
[[7,2,4][8,5,0][3,1,6]] - Already visited Node!
Node Chosen for Level 7 - [[2,4,0][7,3,6][5,8,1]]
Generated Nodes:
[[2,0,4][7,3,6][5,8,1]] - Already visited Node!
[[2,4,6][7,3,0][5,8,1]] - f(n) = 7 + 7 = 14
Node Chosen for Level 7 - [[2,3,4][7,0,6][5,8,1]]
Generated Nodes:
[[2,0,4][7,3,6][5,8,1]] - Already visited Node!
[[2,3,4][7,6,0][5,8,1]] - f(n) = 7 + 7 = 14
[[2,3,4][0,7,6][5,8,1]] - f(n) = 7 + 6 = 13
[[2,3,4][7,8,6][5,0,1]] - f(n) = 7 + 7 = 14
Node Chosen for Level 7 - [[7,4,0][3,2,6][5,8,1]]
Generated Nodes:
[[7,0,4][3,2,6][5,8,1]] - Already visited Node!
[[7,4,6][3,2,0][5,8,1]] - f(n) = 7 + 7 = 14
Node Chosen for Level 7 - [[0,7,4][3,2,6][5,8,1]]
Generated Nodes:
[[7,0,4][3,2,6][5,8,1]] - Already visited Node!
[[3,7,4][0,2,6][5,8,1]] - f(n) = 7 + 6 = 13
Node Chosen for Level 7 - [[7,2,0][3,6,4][5,8,1]]
Generated Nodes:
[[7,0,2][3,6,4][5,8,1]] - f(n) = 7 + 7 = 14
[[7,2,4][3,6,0][5,8,1]] - Already visited Node!
Node Chosen for Level 7 - [[7,2,4][3,6,1][5,8,0]]
Generated Nodes:
[[7,2,4][3,6,0][5,8,1]] - Already visited Node!
[[7,2,4][3,6,1][5,0,8]] - f(n) = 7 + 7 = 14
```

```
Node Chosen for Level 7 - [[7,2,4][3,8,6][5,1,0]]
Generated Nodes:
[[7,2,4][3,8,0][5,1,6]] - f(n) = 7 + 7 = 14
[[7,2,4][3,8,6][5,0,1]] - Already visited Node!
Node Chosen for Level 7 - [[7,2,4][3,8,6][0,5,1]]
Generated Nodes:
[[7,2,4][0,8,6][3,5,1]] - Already visited Node!
[[7,2,4][3,8,6][5,0,1]] - Already visited Node!
Node Chosen for Level 6 - [[7,2,4][5,1,3][8,0,6]]
Generated Nodes:
[[7,2,4][5,0,3][8,1,6]] - Already visited Node!
[[7,2,4][5,1,3][8,6,0]] - f(n) = 6 + 7 = 13
[[7,2,4][5,1,3][0,8,6]] - f(n) = 6 + 6 = 12
Node Chosen for Level 7 - [[0,2,4][7,8,6][3,5,1]]
Generated Nodes:
[[2,0,4][7,8,6][3,5,1]] - f(n) = 7 + 7 = 14
[[7,2,4][0,8,6][3,5,1]] - Already visited Node!
Node Chosen for Level 7 - [[7,2,4][3,8,6][0,5,1]]
Generated Nodes:
[[7,2,4][0,8,6][3,5,1]] - Already visited Node!
[[7,2,4][3,8,6][5,0,1]] - Already visited Node!
Node Chosen for Level 6 - [[5,0,4][2,7,6][8,3,1]]
Generated Nodes:
[[5,4,0][2,7,6][8,3,1]] - f(n) = 6 + 7 = 13
[[0,5,4][2,7,6][8,3,1]] - f(n) = 6 + 7 = 13
[[5,7,4][2,0,6][8,3,1]] - Already visited Node!
Node Chosen for Level 6 - [[5,7,4][2,3,6][8,0,1]]
Generated Nodes:
[[5,7,4][2,0,6][8,3,1]] - Already visited Node!
[[5,7,4][2,3,6][8,1,0]] - f(n) = 6 + 7 = 13
[[5,7,4][2,3,6][0,8,1]] - f(n) = 6 + 6 = 12
```

```
Node Chosen for Level 6 - [[5,7,4][8,2,6][3,0,1]]
Generated Nodes:
[[5,7,4][8,0,6][3,2,1]] - f(n) = 6 + 7 = 13
[[5,7,4][8,2,6][3,1,0]] - f(n) = 6 + 7 = 13
[[5,7,4][8,2,6][0,3,1]] - Already visited Node!
Node Chosen for Level 6 - [[7,2,4][5,1,0][8,6,3]]
Generated Nodes:
[[7,2,0][5,1,4][8,6,3]] - f(n) = 6 + 7 = 13
[[7,2,4][5,0,1][8,6,3]] - Already visited Node!
[[7,2,4][5,1,3][8,6,0]] - f(n) = 6 + 7 = 13
Node Chosen for Level 7 - [[0,2,4][7,6,1][5,8,3]]
Generated Nodes:
[[2,0,4][7,6,1][5,8,3]] - f(n) = 7 + 7 = 14
[[7,2,4][0,6,1][5,8,3]] - Already visited Node!
Node Chosen for Level 7 - [[7,2,4][6,0,1][5,8,3]]
Generated Nodes:
[[7,0,4][6,2,1][5,8,3]] - f(n) = 7 + 7 = 14
[[7,2,4][6,1,0][5,8,3]] - f(n) = 7 + 6 = 13
[[7,2,4][0,6,1][5,8,3]] - Already visited Node!
[[7,2,4][6,8,1][5,0,3]] - f(n) = 7 + 7 = 14
Node Chosen for Level 7 - [[0,2,4][7,5,3][8,1,6]]
Generated Nodes:
[[2,0,4][7,5,3][8,1,6]] - f(n) = 7 + 7 = 14
[[7,2,4][0,5,3][8,1,6]] - Already visited Node!
Node Chosen for Level 7 - [[7,2,4][8,5,3][0,1,6]]
Generated Nodes:
[[7,2,4][0,5,3][8,1,6]] - Already visited Node!
[[7,2,4][8,5,3][1,0,6]] - f(n) = 7 + 6 = 13
Node Chosen for Level 7 - [[0,2,4][7,5,1][8,6,3]]
Generated Nodes:
[[2,0,4][7,5,1][8,6,3]] - f(n) = 7 + 7 = 14
[[7,2,4][0,5,1][8,6,3]] - Already visited Node!
```

```
Node Chosen for Level 7 - [[7,2,4][8,5,1][0,6,3]]
Generated Nodes:
[[7,2,4][0,5,1][8,6,3]] - Already visited Node!
[[7,2,4][8,5,1][6,0,3]] - f(n) = 7 + 6 = 13
Node Chosen for Level 7 - [[2,5,4][7,3,6][0,8,1]]
Generated Nodes:
[[2,5,4][0,3,6][7,8,1]] - f(n) = 7 + 5 = 12
[[2,5,4][7,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 6 - [[7,4,6][0,5,2][8,3,1]]
Generated Nodes:
[[0,4,6][7,5,2][8,3,1]] - f(n) = 6 + 7 = 13
[[7,4,6][5,0,2][8,3,1]] - Already visited Node!
[[7,4,6][8,5,2][0,3,1]] - f(n) = 6 + 7 = 13
Node Chosen for Level 6 - [[7,6,2][0,5,4][8,3,1]]
Generated Nodes:
[[0,6,2][7,5,4][8,3,1]] - f(n) = 6 + 7 = 13
[[7,6,2][5,0,4][8,3,1]] - Already visited Node!
[[7,6,2][8,5,4][0,3,1]] - f(n) = 6 + 7 = 13
Node Chosen for Level 7 - [[7,2,4][5,1,3][0,8,6]]
Generated Nodes:
[[7,2,4][0,1,3][5,8,6]] - f(n) = 7 + 6 = 13
[[7,2,4][5,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 7 - [[5,7,4][2,3,6][0,8,1]]
Generated Nodes:
[[5,7,4][0,3,6][2,8,1]] - f(n) = 7 + 6 = 13
[[5,7,4][2,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 8 - [[2,5,4][0,3,6][7,8,1]]
Generated Nodes:
[[0,5,4][2,3,6][7,8,1]] - f(n) = 8 + 5 = 13
[[2,5,4][3,0,6][7,8,1]] - f(n) = 8 + 5 = 13
[[2,5,4][7,3,6][0,8,1]] - Already visited Node!
```

```
Node Chosen for Level 6 - [[2,5,4][7,6,0][8,3,1]]
Generated Nodes:
[[2,5,0][7,6,4][8,3,1]] - f(n) = 6 + 8 = 14
[[2,5,4][7,0,6][8,3,1]] - Already visited Node!
[[2,5,4][7,6,1][8,3,0]] - f(n) = 6 + 8 = 14
Node Chosen for Level 7 - [[7,2,4][8,0,5][3,1,6]]
Generated Nodes:
[[7,0,4][8,2,5][3,1,6]] - f(n) = 7 + 8 = 15
[[7,2,4][8,5,0][3,1,6]] - Already visited Node!
[[7,2,4][0,8,5][3,1,6]] - f(n) = 7 + 7 = 14
[[7,2,4][8,1,5][3,0,6]] - f(n) = 7 + 7 = 14
Node Chosen for Level 6 - [[7,0,2][5,3,4][8,1,6]]
Generated Nodes:
[[7,2,0][5,3,4][8,1,6]] - Already visited Node!
[[0,7,2][5,3,4][8,1,6]] - f(n) = 6 + 8 = 14
[[7,3,2][5,0,4][8,1,6]] - f(n) = 6 + 8 = 14
Node Chosen for Level 6 - [[7,0,4][5,2,3][8,1,6]]
Generated Nodes:
[[7,4,0][5,2,3][8,1,6]] - f(n) = 6 + 8 = 14
[[0,7,4][5,2,3][8,1,6]] - f(n) = 6 + 8 = 14
[[7,2,4][5,0,3][8,1,6]] - Already visited Node!
Node Chosen for Level 6 - [[5,7,4][2,6,0][8,3,1]]
Generated Nodes:
[[5,7,0][2,6,4][8,3,1]] - f(n) = 6 + 8 = 14
[[5,7,4][2,0,6][8,3,1]] - Already visited Node!
[[5,7,4][2,6,1][8,3,0]] - f(n) = 6 + 8 = 14
Node Chosen for Level 6 - [[7,0,4][5,2,1][8,6,3]]
Generated Nodes:
[[7,4,0][5,2,1][8,6,3]] - f(n) = 6 + 8 = 14
[[0,7,4][5,2,1][8,6,3]] - f(n) = 6 + 8 = 14
[[7,2,4][5,0,1][8,6,3]] - Already visited Node!
Node Chosen for Level 7 - [[7,4,0][8,2,6][3,5,1]]
```

```
Generated Nodes:
[[7,0,4][8,2,6][3,5,1]] - Already visited Node!
[[7,4,6][8,2,0][3,5,1]] - f(n) = 7 + 8 = 15
Node Chosen for Level 7 - [[0,7,4][8,2,6][3,5,1]]
Generated Nodes:
[[7,0,4][8,2,6][3,5,1]] - Already visited Node!
[[8,7,4][0,2,6][3,5,1]] - f(n) = 7 + 7 = 14
Node Chosen for Level 7 - [[7,2,0][8,6,4][3,5,1]]
Generated Nodes:
[[7,0,2][8,6,4][3,5,1]] - f(n) = 7 + 8 = 15
[[7,2,4][8,6,0][3,5,1]] - Already visited Node!
Node Chosen for Level 7 - [[7,2,4][8,6,1][3,5,0]]
Generated Nodes:
[[7,2,4][8,6,0][3,5,1]] - Already visited Node!
[[7,2,4][8,6,1][3,0,5]] - f(n) = 7 + 7 = 14
Node Chosen for Level 7 - [[2,4,6][7,5,1][8,3,0]]
Generated Nodes:
[[2,4,6][7,5,0][8,3,1]] - Already visited Node!
[[2,4,6][7,5,1][8,0,3]] - f(n) = 7 + 7 = 14
Node Chosen for Level 7 - [[0,5,4][2,7,6][8,3,1]]
Generated Nodes:
[[5,0,4][2,7,6][8,3,1]] - Already visited Node!
[[2,5,4][0,7,6][8,3,1]] - Already visited Node!
Node Chosen for Level 7 - [[2,5,4][8,7,6][0,3,1]]
Generated Nodes:
[[2,5,4][0,7,6][8,3,1]] - Already visited Node!
[[2,5,4][8,7,6][3,0,1]] - f(n) = 7 + 7 = 14
Node Chosen for Level 7 - [[2,5,4][7,3,6][8,1,0]]
Generated Nodes:
[[2,5,4][7,3,0][8,1,6]] - f(n) = 7 + 8 = 15
```

```
[[2,5,4][7,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 6 - [[7,0,6][5,4,2][8,3,1]]
Generated Nodes:
[[7,6,0][5,4,2][8,3,1]] - f(n) = 6 + 8 = 14
[[0,7,6][5,4,2][8,3,1]] - f(n) = 6 + 8 = 14
[[7,4,6][5,0,2][8,3,1]] - Already visited Node!
Node Chosen for Level 6 - [[7,4,6][5,3,2][8,0,1]]
Generated Nodes:
[[7,4,6][5,0,2][8,3,1]] - Already visited Node!
[[7,4,6][5,3,2][8,1,0]] - f(n) = 6 + 8 = 14
[[7,4,6][5,3,2][0,8,1]] - f(n) = 6 + 7 = 13
Node Chosen for Level 6 - [[7,4,6][5,2,1][8,0,3]]
Generated Nodes:
[[7,4,6][5,0,1][8,2,3]] - f(n) = 6 + 8 = 14
[[7,4,6][5,2,1][8,3,0]] - Already visited Node!
[[7,4,6][5,2,1][0,8,3]] - f(n) = 6 + 7 = 13
Node Chosen for Level 6 - [[5,7,2][0,6,4][8,3,1]]
Generated Nodes:
[[0,7,2][5,6,4][8,3,1]] - Already visited Node!
[[5,7,2][6,0,4][8,3,1]] - f(n) = 6 + 8 = 14
[[5,7,2][8,6,4][0,3,1]] - f(n) = 6 + 8 = 14
Node Chosen for Level 6 - [[7,6,2][5,4,0][8,3,1]]
Generated Nodes:
[[7,6,0][5,4,2][8,3,1]] - f(n) = 6 + 8 = 14
[[7,6,2][5,0,4][8,3,1]] - Already visited Node!
[[7,6,2][5,4,1][8,3,0]] - f(n) = 6 + 8 = 14
Node Chosen for Level 6 - [[7,6,2][5,3,4][8,0,1]]
Generated Nodes:
[[7,6,2][5,0,4][8,3,1]] - Already visited Node!
[[7,6,2][5,3,4][8,1,0]] - f(n) = 6 + 8 = 14
[[7,6,2][5,3,4][0,8,1]] - f(n) = 6 + 7 = 13
Node Chosen for Level 8 - [[2,3,4][0,7,6][5,8,1]]
```

```
[[0,3,4][2,7,6][5,8,1]] - f(n) = 8 + 6 = 14
[[2,3,4][7,0,6][5,8,1]] - Already visited Node!
[[2,3,4][5,7,6][0,8,1]] - f(n) = 8 + 6 = 14
Node Chosen for Level 8 - [[3,7,4][0,2,6][5,8,1]]
Generated Nodes:
[[0,7,4][3,2,6][5,8,1]] - Already visited Node!
[[3,7,4][2,0,6][5,8,1]] - f(n) = 8 + 6 = 14
[[3,7,4][5,2,6][0,8,1]] - f(n) = 8 + 6 = 14
Node Chosen for Level 7 - [[7,2,4][5,1,3][8,6,0]]
Generated Nodes:
[[7,2,4][5,1,0][8,6,3]] - Already visited Node!
[[7,2,4][5,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 7 - [[5,4,0][2,7,6][8,3,1]]
Generated Nodes:
[[5,0,4][2,7,6][8,3,1]] - Already visited Node!
[[5,4,6][2,7,0][8,3,1]] - f(n) = 7 + 8 = 15
Node Chosen for Level 7 - [[0,5,4][2,7,6][8,3,1]]
Generated Nodes:
[[5,0,4][2,7,6][8,3,1]] - Already visited Node!
[[2,5,4][0,7,6][8,3,1]] - Already visited Node!
Node Chosen for Level 7 - [[5,7,4][2,3,6][8,1,0]]
Generated Nodes:
[[5,7,4][2,3,0][8,1,6]] - f(n) = 7 + 8 = 15
[[5,7,4][2,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 7 - [[5,7,4][8,0,6][3,2,1]]
Generated Nodes:
[[5,0,4][8,7,6][3,2,1]] - f(n) = 7 + 7 = 14
[[5,7,4][8,6,0][3,2,1]] - f(n) = 7 + 8 = 15
[[5,7,4][0,8,6][3,2,1]] - f(n) = 7 + 7 = 14
[[5,7,4][8,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 7 - [[5,7,4][8,2,6][3,1,0]]
```

Generated Nodes:

```
Generated Nodes:
[[5,7,4][8,2,0][3,1,6]] - f(n) = 7 + 8 = 15
[[5,7,4][8,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 7 - [[7,2,0][5,1,4][8,6,3]]
Generated Nodes:
[[7,0,2][5,1,4][8,6,3]] - f(n) = 7 + 8 = 15
[[7,2,4][5,1,0][8,6,3]] - Already visited Node!
Node Chosen for Level 7 - [[7,2,4][5,1,3][8,6,0]]
Generated Nodes:
[[7,2,4][5,1,0][8,6,3]] - Already visited Node!
[[7,2,4][5,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 8 - [[7,2,4][6,1,0][5,8,3]]
Generated Nodes:
[[7,2,0][6,1,4][5,8,3]] - f(n) = 8 + 6 = 14
[[7,2,4][6,0,1][5,8,3]] - Already visited Node!
[[7,2,4][6,1,3][5,8,0]] - f(n) = 8 + 6 = 14
Node Chosen for Level 8 - [[7,2,4][8,5,3][1,0,6]]
Generated Nodes:
[[7,2,4][8,0,3][1,5,6]] - f(n) = 8 + 7 = 15
[[7,2,4][8,5,3][1,6,0]] - f(n) = 8 + 6 = 14
[[7,2,4][8,5,3][0,1,6]] - Already visited Node!
Node Chosen for Level 8 - [[7,2,4][8,5,1][6,0,3]]
Generated Nodes:
[[7,2,4][8,0,1][6,5,3]] - f(n) = 8 + 7 = 15
[[7,2,4][8,5,1][6,3,0]] - f(n) = 8 + 6 = 14
[[7,2,4][8,5,1][0,6,3]] - Already visited Node!
Node Chosen for Level 7 - [[0,4,6][7,5,2][8,3,1]]
Generated Nodes:
[[4,0,6][7,5,2][8,3,1]] - f(n) = 7 + 7 = 14
[[7,4,6][0,5,2][8,3,1]] - Already visited Node!
Node Chosen for Level 7 - [[7,4,6][8,5,2][0,3,1]]
```

```
Generated Nodes:
```

[[7,4,6][0,5,2][8,3,1]] - Already visited Node! [[7,4,6][8,5,2][3,0,1]] - f(n) = 7 + 7 = 14

Node Chosen for Level 7 - [[0,6,2][7,5,4][8,3,1]]

Generated Nodes:

[[6,0,2][7,5,4][8,3,1]] - f(n) = 7 + 7 = 14[[7,6,2][0,5,4][8,3,1]] - Already visited Node!

Node Chosen for Level 7 - [[7,6,2][8,5,4][0,3,1]]

Generated Nodes:

[[7,6,2][0,5,4][8,3,1]] - Already visited Node! [[7,6,2][8,5,4][3,0,1]] - f(n) = 7 + 7 = 14

Node Chosen for Level 8 - [[7,2,4][0,1,3][5,8,6]]

Generated Nodes:

[[0,2,4][7,1,3][5,8,6]] - f(n) = 8 + 6 = 14 [[7,2,4][1,0,3][5,8,6]] - f(n) = 8 + 6 = 14[[7,2,4][5,1,3][0,8,6]] - Already visited Node!

Node Chosen for Level 8 - [[5,7,4][0,3,6][2,8,1]]

Generated Nodes:

[[0,7,4][5,3,6][2,8,1]] - f(n) = 8 + 6 = 14 [[5,7,4][3,0,6][2,8,1]] - f(n) = 8 + 6 = 14[[5,7,4][2,3,6][0,8,1]] - Already visited Node!

Node Chosen for Level 9 - [[0,5,4][2,3,6][7,8,1]]

Generated Nodes:

[[5,0,4][2,3,6][7,8,1]] - f(n) = 9 + 5 = 14[[2,5,4][0,3,6][7,8,1]] - Already visited Node!

Node Chosen for Level 9 - [[2,5,4][3,0,6][7,8,1]]

Generated Nodes:

[[2,0,4][3,5,6][7,8,1]] - f(n) = 9 + 4 = 13[[2,5,4][3,6,0][7,8,1]] - f(n) = 9 + 6 = 15

[[2,5,4][0,3,6][7,8,1]] - Already visited Node!

[[2,5,4][3,8,6][7,0,1]] - f(n) = 9 + 6 = 15

```
Node Chosen for Level 7 - [[7,4,6][5,3,2][0,8,1]]
Generated Nodes:
[[7,4,6][0,3,2][5,8,1]] - f(n) = 7 + 7 = 14
[[7,4,6][5,3,2][8,0,1]] - Already visited Node!
Node Chosen for Level 7 - [[7,4,6][5,2,1][0,8,3]]
Generated Nodes:
[[7,4,6][0,2,1][5,8,3]] - f(n) = 7 + 7 = 14
[[7,4,6][5,2,1][8,0,3]] - Already visited Node!
Node Chosen for Level 7 - [[7,6,2][5,3,4][0,8,1]]
Generated Nodes:
[[7,6,2][0,3,4][5,8,1]] - f(n) = 7 + 7 = 14
[[7,6,2][5,3,4][8,0,1]] - Already visited Node!
Node Chosen for Level 10 - [[2,0,4][3,5,6][7,8,1]]
Generated Nodes:
[[2,4,0][3,5,6][7,8,1]] - f(n) = 10 + 4 = 14
[[0,2,4][3,5,6][7,8,1]] - f(n) = 10 + 3 = 13
[[2,5,4][3,0,6][7,8,1]] - Already visited Node!
Node Chosen for Level 11 - [[0,2,4][3,5,6][7,8,1]]
Generated Nodes:
[[2,0,4][3,5,6][7,8,1]] - Already visited Node!
[[3,2,4][0,5,6][7,8,1]] - f(n) = 11 + 3 = 14
Node Chosen for Level 7 - [[2,4,6][7,0,5][8,3,1]]
Generated Nodes:
[[2,0,6][7,4,5][8,3,1]] - f(n) = 7 + 8 = 15
[[2,4,6][7,5,0][8,3,1]] - Already visited Node! [[2,4,6][0,7,5][8,3,1]] - f(n) = 7 + 8 = 15
[[2,4,6][7,3,5][8,0,1]] - f(n) = 7 + 8 = 15
Node Chosen for Level 8 - [[7,0,2][8,5,4][3,1,6]]
Generated Nodes:
[[7,2,0][8,5,4][3,1,6]] - Already visited Node!
[[0,7,2][8,5,4][3,1,6]] - f(n) = 8 + 7 = 15
[[7,5,2][8,0,4][3,1,6]] - f(n) = 8 + 8 = 16
```

```
Node Chosen for Level 9 - [[7,5,2][8,0,4][3,1,6]]
Generated Nodes:
[[7,0,2][8,5,4][3,1,6]] - Already visited Node!
[[7,5,2][8,4,0][3,1,6]] - f(n) = 9 + 8 = 17
[[7,5,2][0,8,4][3,1,6]] - f(n) = 9 + 8 = 17
[[7,5,2][8,1,4][3,0,6]] - f(n) = 9 + 8 = 17
Node Chosen for Level 10 - [[7,5,2][8,4,0][3,1,6]]
Generated Nodes:
[[7,5,0][8,4,2][3,1,6]] - f(n) = 10 + 8 = 18
[[7,5,2][8,0,4][3,1,6]] - Already visited Node!
[[7,5,2][8,4,6][3,1,0]] - f(n) = 10 + 7 = 17
Node Chosen for Level 10 - [[7,5,2][0,8,4][3,1,6]]
Generated Nodes:
[[0,5,2][7,8,4][3,1,6]] - f(n) = 10 + 8 = 18
[[7,5,2][8,0,4][3,1,6]] - Already visited Node!
[[7,5,2][3,8,4][0,1,6]] - f(n) = 10 + 8 = 18
Node Chosen for Level 10 - [[7,5,2][8,1,4][3,0,6]]
Generated Nodes:
[[7,5,2][8,0,4][3,1,6]] - Already visited Node!
[[7,5,2][8,1,4][3,6,0]] - f(n) = 10 + 8 = 18
[[7,5,2][8,1,4][0,3,6]] - f(n) = 10 + 8 = 18
Node Chosen for Level 11 - [[7,5,2][8,4,6][3,1,0]]
Generated Nodes:
[[7,5,2][8,4,0][3,1,6]] - Already visited Node!
[[7,5,2][8,4,6][3,0,1]] - f(n) = 11 + 7 = 18
Node Chosen for Level 11 - [[7,5,0][8,4,2][3,1,6]]
Generated Nodes:
[[7,0,5][8,4,2][3,1,6]] - f(n) = 11 + 8 = 19
[[7,5,2][8,4,0][3,1,6]] - Already visited Node!
Node Chosen for Level 11 - [[0,5,2][7,8,4][3,1,6]]
Generated Nodes:
```

```
[[5,0,2][7,8,4][3,1,6]] - f(n) = 11 + 8 = 19
[[7,5,2][0,8,4][3,1,6]] - Already visited Node!
Node Chosen for Level 11 - [[7,5,2][3,8,4][0,1,6]]
Generated Nodes:
[[7,5,2][0,8,4][3,1,6]] - Already visited Node!
[[7,5,2][3,8,4][1,0,6]] - f(n) = 11 + 8 = 19
Node Chosen for Level 11 - [[7,5,2][8,1,4][3,6,0]]
Generated Nodes:
[[7,5,2][8,1,0][3,6,4]] - f(n) = 11 + 8 = 19
[[7,5,2][8,1,4][3,0,6]] - Already visited Node!
Node Chosen for Level 11 - [[7,5,2][8,1,4][0,3,6]]
Generated Nodes:
[[7,5,2][0,1,4][8,3,6]] - f(n) = 11 + 8 = 19
[[7,5,2][8,1,4][3,0,6]] - Already visited Node!
Node Chosen for Level 12 - [[7,5,2][8,4,6][3,0,1]]
Generated Nodes:
[[7,5,2][8,0,6][3,4,1]] - f(n) = 12 + 7 = 19
[[7,5,2][8,4,6][3,1,0]] - Already visited Node!
[[7,5,2][8,4,6][0,3,1]] - f(n) = 12 + 7 = 19
Node Chosen for Level 12 - [[7,0,5][8,4,2][3,1,6]]
Generated Nodes:
[[7,5,0][8,4,2][3,1,6]] - Already visited Node!
[[0,7,5][8,4,2][3,1,6]] - f(n) = 12 + 8 = 20
[[7,4,5][8,0,2][3,1,6]] - f(n) =
                                  12 + 8 = 20
Node Chosen for Level 12 - [[5,0,2][7,8,4][3,1,6]]
Generated Nodes:
[[5,2,0][7,8,4][3,1,6]] - f(n) = 12 + 7 = 19
[[0,5,2][7,8,4][3,1,6]] - Already visited Node!
[[5,8,2][7,0,4][3,1,6]] - f(n) = 12 + 8 = 20
Node Chosen for Level 12 - [[7,5,2][3,8,4][1,0,6]]
Generated Nodes:
```

```
[[7,5,2][3,0,4][1,8,6]] - f(n) = 12 + 7 = 19
[[7,5,2][3,8,4][1,6,0]] - f(n) = 12 + 8 = 20
[[7,5,2][3,8,4][0,1,6]] - Already visited Node!
Node Chosen for Level 12 - [[7,5,2][8,1,0][3,6,4]]
Generated Nodes:
[[7,5,0][8,1,2][3,6,4]] - f(n) = 12 + 8 = 20
[[7,5,2][8,0,1][3,6,4]] - f(n) = 12 + 8 = 20
[[7,5,2][8,1,4][3,6,0]] - Already visited Node!
Node Chosen for Level 12 - [[7,5,2][0,1,4][8,3,6]]
Generated Nodes:
[[0,5,2][7,1,4][8,3,6]] - f(n) = 12 + 8 = 20
[[7,5,2][1,0,4][8,3,6]] - f(n) = 12 + 8 = 20
[[7,5,2][8,1,4][0,3,6]] - Already visited Node!
Node Chosen for Level 13 - [[7,5,2][8,0,6][3,4,1]]
Generated Nodes:
[[7,0,2][8,5,6][3,4,1]] - f(n) = 13 + 6 = 19
[[7,5,2][8,6,0][3,4,1]] - f(n) = 13 + 8 = 21
[[7,5,2][0,8,6][3,4,1]] - f(n) = 13 + 7 = 20
[[7,5,2][8,4,6][3,0,1]] - Already visited Node!
Node Chosen for Level 13 - [[7,5,2][8,4,6][0,3,1]]
Generated Nodes:
[[7,5,2][0,4,6][8,3,1]] - f(n) = 13 + 7 = 20
[[7,5,2][8,4,6][3,0,1]] - Already visited Node!
Node Chosen for Level 13 - [[5,2,0][7,8,4][3,1,6]]
Generated Nodes:
[[5,0,2][7,8,4][3,1,6]] - Already visited Node!
[[5,2,4][7,8,0][3,1,6]] - f(n) = 13 + 7 = 20
Node Chosen for Level 13 - [[7,5,2][3,0,4][1,8,6]]
Generated Nodes:
[[7,0,2][3,5,4][1,8,6]] - f(n) = 13 + 6 = 19
[[7,5,2][3,4,0][1,8,6]] - f(n) = 13 + 7 = 20
[[7,5,2][0,3,4][1,8,6]] - f(n) = 13 + 7 = 20
[[7,5,2][3,8,4][1,0,6]] - Already visited Node!
```

```
Node Chosen for Level 14 - [[7,0,2][8,5,6][3,4,1]]
Generated Nodes:
[[7,2,0][8,5,6][3,4,1]] - f(n) = 14 + 5 = 19
[[0,7,2][8,5,6][3,4,1]] - f(n) = 14 + 6 = 20
[[7,5,2][8,0,6][3,4,1]] - Already visited Node!
Node Chosen for Level 14 - [[7,0,2][3,5,4][1,8,6]]
Generated Nodes:
[[7,2,0][3,5,4][1,8,6]] - f(n) = 14 + 5 = 19
[[0,7,2][3,5,4][1,8,6]] - f(n) = 14 + 6 = 20
[[7,5,2][3,0,4][1,8,6]] - Already visited Node!
Node Chosen for Level 15 - [[7,2,0][8,5,6][3,4,1]]
Generated Nodes:
[[7,0,2][8,5,6][3,4,1]] - Already visited Node!
[[7,2,6][8,5,0][3,4,1]] - f(n) = 15 + 6 = 21
Node Chosen for Level 15 - [[7,2,0][3,5,4][1,8,6]]
Generated Nodes:
[[7,0,2][3,5,4][1,8,6]] - Already visited Node!
[[7,2,4][3,5,0][1,8,6]] - f(n) = 15 + 5 = 20
Node Chosen for Level 13 - [[0,7,5][8,4,2][3,1,6]]
Generated Nodes:
[[7,0,5][8,4,2][3,1,6]] - Already visited Node!
[[8,7,5][0,4,2][3,1,6]] - f(n) = 13 + 8 = 21
Node Chosen for Level 13 - [[7,4,5][8,0,2][3,1,6]]
Generated Nodes:
[[7,0,5][8,4,2][3,1,6]] - Already visited Node! [[7,4,5][8,2,0][3,1,6]] - f(n) = 13 + 8 = 21
[[7,4,5][0,8,2][3,1,6]] - f(n) = 13 + 8 = 21
[[7,4,5][8,1,2][3,0,6]] - f(n) = 13 + 8 = 21
Node Chosen for Level 13 - [[5,8,2][7,0,4][3,1,6]]
Generated Nodes:
[[5,0,2][7,8,4][3,1,6]] - Already visited Node!
[[5,8,2][7,4,0][3,1,6]] - f(n) = 13 + 8 = 21
```

```
[[5,8,2][0,7,4][3,1,6]] - f(n) = 13 + 8 = 21
[[5,8,2][7,1,4][3,0,6]] - f(n) = 13 + 8 = 21
Node Chosen for Level 13 - [[7,5,2][3,8,4][1,6,0]]
Generated Nodes:
[[7,5,2][3,8,0][1,6,4]] - f(n) = 13 + 8 = 21
[[7,5,2][3,8,4][1,0,6]] - Already visited Node!
Node Chosen for Level 13 - [[7,5,0][8,1,2][3,6,4]]
Generated Nodes:
[[7,0,5][8,1,2][3,6,4]] - f(n) = 13 + 8 = 21
[[7,5,2][8,1,0][3,6,4]] - Already visited Node!
Node Chosen for Level 13 - [[7,5,2][8,0,1][3,6,4]]
Generated Nodes:
[[7,0,2][8,5,1][3,6,4]] - f(n) = 13 + 7 = 20
[[7,5,2][8,1,0][3,6,4]] - Already visited Node!
[[7,5,2][0,8,1][3,6,4]] - f(n) = 13 + 8 = 21
[[7,5,2][8,6,1][3,0,4]] - f(n) =
                                13 + 8 = 21
Node Chosen for Level 13 - [[0,5,2][7,1,4][8,3,6]]
Generated Nodes:
[[5,0,2][7,1,4][8,3,6]] - f(n) = 13 + 8 = 21
[[7,5,2][0,1,4][8,3,6]] - Already visited Node!
Node Chosen for Level 13 - [[7,5,2][1,0,4][8,3,6]]
Generated Nodes:
[[7,0,2][1,5,4][8,3,6]] - f(n) = 13 + 7 = 20
[[7,5,2][1,4,0][8,3,6]] - f(n) = 13 + 8 = 21
[[7,5,2][0,1,4][8,3,6]] - Already visited Node!
[[7,5,2][1,3,4][8,0,6]] - f(n) = 13 + 8 = 21
Node Chosen for Level 14 - [[7,5,2][0,8,6][3,4,1]]
Generated Nodes:
[[0,5,2][7,8,6][3,4,1]] - f(n) = 14 + 7 = 21
[[7,5,2][8,0,6][3,4,1]] - Already visited Node!
[[7,5,2][3,8,6][0,4,1]] - f(n) = 14 + 7 = 21
Node Chosen for Level 14 - [[7,5,2][0,4,6][8,3,1]]
```

```
Generated Nodes:
[[0,5,2][7,4,6][8,3,1]] - f(n) = 14 + 7 = 21
[[7,5,2][4,0,6][8,3,1]] - f(n) = 14 + 6 = 20
[[7,5,2][8,4,6][0,3,1]] - Already visited Node!
Node Chosen for Level 14 - [[5,2,4][7,8,0][3,1,6]]
Generated Nodes:
[[5,2,0][7,8,4][3,1,6]] - Already visited Node!
[[5,2,4][7,0,8][3,1,6]] - f(n) = 14 + 7 = 21
[[5,2,4][7,8,6][3,1,0]] - f(n) = 14 + 6 = 20
Node Chosen for Level 14 - [[7,5,2][3,4,0][1,8,6]]
Generated Nodes:
[[7,5,0][3,4,2][1,8,6]] - f(n) = 14 + 7 = 21
[[7,5,2][3,0,4][1,8,6]] - Already visited Node! [[7,5,2][3,4,6][1,8,0]] - f(n) = 14 + 6 = 20
Node Chosen for Level 14 - [[7,5,2][0,3,4][1,8,6]]
Generated Nodes:
[[0,5,2][7,3,4][1,8,6]] - f(n) = 14 + 7 = 21
[[7,5,2][3,0,4][1,8,6]] - Already visited Node!
[[7,5,2][1,3,4][0,8,6]] - f(n) = 14 + 7 = 21
Node Chosen for Level 15 - [[0,7,2][8,5,6][3,4,1]]
Generated Nodes:
[[7,0,2][8,5,6][3,4,1]] - Already visited Node!
[[8,7,2][0,5,6][3,4,1]] - f(n) = 15 + 6 = 21
Node Chosen for Level 15 - [[0,7,2][3,5,4][1,8,6]]
Generated Nodes:
[[7,0,2][3,5,4][1,8,6]] - Already visited Node!
[[3,7,2][0,5,4][1,8,6]] - f(n) = 15 + 6 = 21
Node Chosen for Level 16 - [[7,2,4][3,5,0][1,8,6]]
Generated Nodes:
[[7,2,0][3,5,4][1,8,6]] - Already visited Node!
```

[[7,2,4][3,0,5][1,8,6]] - f(n) = 16 + 6 = 22[[7,2,4][3,5,6][1,8,0]] - f(n) = 16 + 4 = 20

```
Node Chosen for Level 14 - [[7,0,2][8,5,1][3,6,4]]
Generated Nodes:
[[7,2,0][8,5,1][3,6,4]] - f(n) = 14 + 6 = 20
[[0,7,2][8,5,1][3,6,4]] - f(n) = 14 + 7 = 21
[[7,5,2][8,0,1][3,6,4]] - Already visited Node!
Node Chosen for Level 14 - [[7,0,2][1,5,4][8,3,6]]
Generated Nodes:
[[7,2,0][1,5,4][8,3,6]] - f(n) = 14 + 6 = 20
[[0,7,2][1,5,4][8,3,6]] - f(n) = 14 + 7 = 21
[[7,5,2][1,0,4][8,3,6]] - Already visited Node!
Node Chosen for Level 15 - [[7,5,2][4,0,6][8,3,1]]
Generated Nodes:
[[7,0,2][4,5,6][8,3,1]] - f(n) = 15 + 5 = 20
[[7,5,2][4,6,0][8,3,1]] - f(n) = 15 + 7 = 22
[[7,5,2][0,4,6][8,3,1]] - Already visited Node!
[[7,5,2][4,3,6][8,0,1]] - f(n) = 15 + 6 = 21
Node Chosen for Level 15 - [[5,2,4][7,8,6][3,1,0]]
Generated Nodes:
[[5,2,4][7,8,0][3,1,6]] - Already visited Node!
[[5,2,4][7,8,6][3,0,1]] - f(n) = 15 + 6 = 21
Node Chosen for Level 15 - [[7,5,2][3,4,6][1,8,0]]
Generated Nodes:
[[7,5,2][3,4,0][1,8,6]] - Already visited Node!
[[7,5,2][3,4,6][1,0,8]] - f(n) = 15 + 7 = 22
Node Chosen for Level 17 - [[7,2,4][3,5,6][1,8,0]]
Generated Nodes:
[[7,2,4][3,5,0][1,8,6]] - Already visited Node!
[[7,2,4][3,5,6][1,0,8]] - f(n) = 17 + 5 = 22
Node Chosen for Level 15 - [[7,2,0][8,5,1][3,6,4]]
Generated Nodes:
[[7,0,2][8,5,1][3,6,4]] - Already visited Node!
[[7,2,1][8,5,0][3,6,4]] - f(n) = 15 + 6 = 21
```

```
Node Chosen for Level 15 - [[7,2,0][1,5,4][8,3,6]]
Generated Nodes:
[[7,0,2][1,5,4][8,3,6]] - Already visited Node!
[[7,2,4][1,5,0][8,3,6]] - f(n) = 15 + 6 = 21
Node Chosen for Level 16 - [[7,0,2][4,5,6][8,3,1]]
Generated Nodes:
[[7,2,0][4,5,6][8,3,1]] - f(n) = 16 + 4 = 20
[[0,7,2][4,5,6][8,3,1]] - f(n) = 16 + 5 = 21
[[7,5,2][4,0,6][8,3,1]] - Already visited Node!
Node Chosen for Level 17 - [[7,2,0][4,5,6][8,3,1]]
Generated Nodes:
[[7,0,2][4,5,6][8,3,1]] - Already visited Node!
[[7,2,6][4,5,0][8,3,1]] - f(n) = 17 + 5 = 22
Node Chosen for Level 14 - [[7,5,2][8,6,0][3,4,1]]
Generated Nodes:
[[7,5,0][8,6,2][3,4,1]] - f(n) = 14 + 8 = 22
[[7,5,2][8,0,6][3,4,1]] - Already visited Node!
[[7,5,2][8,6,1][3,4,0]] - f(n) = 14 + 8 = 22
Node Chosen for Level 16 - [[7,2,6][8,5,0][3,4,1]]
Generated Nodes:
[[7,2,0][8,5,6][3,4,1]] - Already visited Node!
[[7,2,6][8,0,5][3,4,1]] - f(n) = 16 + 7 = 23
[[7,2,6][8,5,1][3,4,0]] - f(n) = 16 + 6 = 22
Node Chosen for Level 14 - [[8,7,5][0,4,2][3,1,6]]
Generated Nodes:
[[0,7,5][8,4,2][3,1,6]] - Already visited Node!
[[8,7,5][4,0,2][3,1,6]] - f(n) = 14 + 7 = 21
[[8,7,5][3,4,2][0,1,6]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[7,4,5][8,2,0][3,1,6]]
Generated Nodes:
[[7,4,0][8,2,5][3,1,6]] - f(n) = 14 + 8 = 22
```

```
[[7,4,5][8,0,2][3,1,6]] - Already visited Node!
[[7,4,5][8,2,6][3,1,0]] - f(n) = 14 + 7 = 21
Node Chosen for Level 14 - [[7,4,5][0,8,2][3,1,6]]
Generated Nodes:
[[0,4,5][7,8,2][3,1,6]] - f(n) = 14 + 8 = 22
[[7,4,5][8,0,2][3,1,6]] - Already visited Node!
[[7,4,5][3,8,2][0,1,6]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[7,4,5][8,1,2][3,0,6]]
Generated Nodes:
[[7,4,5][8,0,2][3,1,6]] - Already visited Node!
[[7,4,5][8,1,2][3,6,0]] - f(n) = 14 + 8 = 22
[[7,4,5][8,1,2][0,3,6]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[5,8,2][7,4,0][3,1,6]]
Generated Nodes:
[[5,8,0][7,4,2][3,1,6]] - f(n) = 14 + 8 = 22
[[5,8,2][7,0,4][3,1,6]] - Already visited Node!
[[5,8,2][7,4,6][3,1,0]] - f(n) = 14 + 7 = 21
Node Chosen for Level 14 - [[5,8,2][0,7,4][3,1,6]]
Generated Nodes:
[[0,8,2][5,7,4][3,1,6]] - f(n) = 14 + 8 = 22
[[5,8,2][7,0,4][3,1,6]] - Already visited Node!
[[5,8,2][3,7,4][0,1,6]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[5,8,2][7,1,4][3,0,6]]
Generated Nodes:
[[5,8,2][7,0,4][3,1,6]] - Already visited Node!
[[5,8,2][7,1,4][3,6,0]] - f(n) = 14 + 8 = 22
[[5,8,2][7,1,4][0,3,6]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[7,5,2][3,8,0][1,6,4]]
Generated Nodes:
[[7,5,0][3,8,2][1,6,4]] - f(n) = 14 + 8 = 22
[[7,5,2][3,0,8][1,6,4]] - f(n) = 14 + 8 = 22
[[7,5,2][3,8,4][1,6,0]] - Already visited Node!
Node Chosen for Level 14 - [[7,0,5][8,1,2][3,6,4]]
```

```
Generated Nodes:
[[7,5,0][8,1,2][3,6,4]] - Already visited Node!
[[0,7,5][8,1,2][3,6,4]] - f(n) = 14 + 8 = 22
[[7,1,5][8,0,2][3,6,4]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[7,5,2][0,8,1][3,6,4]]
Generated Nodes:
[[0,5,2][7,8,1][3,6,4]] - f(n) = 14 + 8 = 22
[[7,5,2][8,0,1][3,6,4]] - Already visited Node!
[[7,5,2][3,8,1][0,6,4]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[7,5,2][8,6,1][3,0,4]]
Generated Nodes:
[[7,5,2][8,0,1][3,6,4]] - Already visited Node!
[[7,5,2][8,6,1][3,4,0]] - f(n) = 14 + 8 = 22
[[7,5,2][8,6,1][0,3,4]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[5,0,2][7,1,4][8,3,6]]
Generated Nodes:
[[5,2,0][7,1,4][8,3,6]] - f(n) = 14 + 7 = 21
[[0,5,2][7,1,4][8,3,6]] - Already visited Node!
[[5,1,2][7,0,4][8,3,6]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[7,5,2][1,4,0][8,3,6]]
Generated Nodes:
[[7,5,0][1,4,2][8,3,6]] - f(n) = 14 + 8 = 22
[[7,5,2][1,0,4][8,3,6]] - Already visited Node!
[[7,5,2][1,4,6][8,3,0]] - f(n) = 14 + 7 = 21
Node Chosen for Level 14 - [[7,5,2][1,3,4][8,0,6]]
Generated Nodes:
[[7,5,2][1,0,4][8,3,6]] - Already visited Node!
[[7,5,2][1,3,4][8,6,0]] - f(n) = 14 + 8 = 22
[[7,5,2][1,3,4][0,8,6]] - f(n) = 14 + 7 = 21
Node Chosen for Level 15 - [[0,5,2][7,8,6][3,4,1]]
Generated Nodes:
```

[[5,0,2][7,8,6][3,4,1]] - f(n) = 15 + 7 = 22

```
[[7,5,2][0,8,6][3,4,1]] - Already visited Node!
Node Chosen for Level 15 - [[7,5,2][3,8,6][0,4,1]]
Generated Nodes:
[[7,5,2][0,8,6][3,4,1]] - Already visited Node!
[[7,5,2][3,8,6][4,0,1]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[0,5,2][7,4,6][8,3,1]]
Generated Nodes:
[[5,0,2][7,4,6][8,3,1]] - f(n) = 15 + 7 = 22
[[7,5,2][0,4,6][8,3,1]] - Already visited Node!
Node Chosen for Level 15 - [[5,2,4][7,0,8][3,1,6]]
Generated Nodes:
[[5,0,4][7,2,8][3,1,6]] - f(n) = 15 + 8 = 23
[[5,2,4][7,8,0][3,1,6]] - Already visited Node! [[5,2,4][0,7,8][3,1,6]] - f(n) = 15 + 7 = 22
[[5,2,4][7,1,8][3,0,6]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[7,5,0][3,4,2][1,8,6]]
Generated Nodes:
[[7,0,5][3,4,2][1,8,6]] - f(n) = 15 + 7 = 22
[[7,5,2][3,4,0][1,8,6]] - Already visited Node!
Node Chosen for Level 15 - [[0,5,2][7,3,4][1,8,6]]
Generated Nodes:
[[5,0,2][7,3,4][1,8,6]] - f(n) = 15 + 7 = 22
[[7,5,2][0,3,4][1,8,6]] - Already visited Node!
Node Chosen for Level 15 - [[7,5,2][1,3,4][0,8,6]]
Generated Nodes:
[[7,5,2][0,3,4][1,8,6]] - Already visited Node!
[[7,5,2][1,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 16 - [[8,7,2][0,5,6][3,4,1]]
Generated Nodes:
[[0,7,2][8,5,6][3,4,1]] - Already visited Node!
[[8,7,2][5,0,6][3,4,1]] - f(n) = 16 + 7 = 23
```

```
[[8,7,2][3,5,6][0,4,1]] - f(n) = 16 + 6 = 22
Node Chosen for Level 16 - [[3,7,2][0,5,4][1,8,6]]
Generated Nodes:
[[0,7,2][3,5,4][1,8,6]] - Already visited Node!
[[3,7,2][5,0,4][1,8,6]] - f(n) = 16 + 7 = 23
[[3,7,2][1,5,4][0,8,6]] - f(n) = 16 + 6 = 22
Node Chosen for Level 15 - [[0,7,2][8,5,1][3,6,4]]
Generated Nodes:
[[7,0,2][8,5,1][3,6,4]] - Already visited Node!
[[8,7,2][0,5,1][3,6,4]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[0,7,2][1,5,4][8,3,6]]
Generated Nodes:
[[7,0,2][1,5,4][8,3,6]] - Already visited Node!
[[1,7,2][0,5,4][8,3,6]] - f(n) = 15 + 6 = 21
Node Chosen for Level 16 - [[7,5,2][4,3,6][8,0,1]]
Generated Nodes:
[[7,5,2][4,0,6][8,3,1]] - Already visited Node!
[[7,5,2][4,3,6][8,1,0]] - f(n) = 16 + 6 = 22
[[7,5,2][4,3,6][0,8,1]] - f(n) =
                                  16 + 5 = 21
Node Chosen for Level 16 - [[5,2,4][7,8,6][3,0,1]]
Generated Nodes:
[[5,2,4][7,0,6][3,8,1]] - f(n) = 16 + 5 = 21
[[5,2,4][7,8,6][3,1,0]] - Already visited Node!
[[5,2,4][7,8,6][0,3,1]] - f(n) = 16 + 6 = 22
Node Chosen for Level 16 - [[7,2,1][8,5,0][3,6,4]]
Generated Nodes:
[[7,2,0][8,5,1][3,6,4]] - Already visited Node!
[[7,2,1][8,0,5][3,6,4]] - f(n) = 16 + 7 = 23
[[7,2,1][8,5,4][3,6,0]] - f(n) =
                                  16 + 6 = 22
Node Chosen for Level 16 - [[7,2,4][1,5,0][8,3,6]]
Generated Nodes:
```

```
[[7,2,0][1,5,4][8,3,6]] - Already visited Node!
[[7,2,4][1,0,5][8,3,6]] - f(n) = 16 + 7 = 23
[[7,2,4][1,5,6][8,3,0]] - f(n) = 16 + 5 = 21
Node Chosen for Level 17 - [[0,7,2][4,5,6][8,3,1]]
Generated Nodes:
[[7,0,2][4,5,6][8,3,1]] - Already visited Node!
[[4,7,2][0,5,6][8,3,1]] - f(n) = 17 + 6 = 23
Node Chosen for Level 15 - [[8,7,5][4,0,2][3,1,6]]
Generated Nodes:
[[8,0,5][4,7,2][3,1,6]] - f(n) = 15 + 7 = 22
[[8,7,5][4,2,0][3,1,6]] - f(n) = 15 + 7 = 22
[[8,7,5][0,4,2][3,1,6]] - Already visited Node!
[[8,7,5][4,1,2][3,0,6]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[7,4,5][8,2,6][3,1,0]]
Generated Nodes:
[[7,4,5][8,2,0][3,1,6]] - Already visited Node!
[[7,4,5][8,2,6][3,0,1]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[5,8,2][7,4,6][3,1,0]]
Generated Nodes:
[[5,8,2][7,4,0][3,1,6]] - Already visited Node!
[[5,8,2][7,4,6][3,0,1]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[5,2,0][7,1,4][8,3,6]]
Generated Nodes:
[[5,0,2][7,1,4][8,3,6]] - Already visited Node!
[[5,2,4][7,1,0][8,3,6]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[7,5,2][1,4,6][8,3,0]]
Generated Nodes:
[[7,5,2][1,4,0][8,3,6]] - Already visited Node!
[[7,5,2][1,4,6][8,0,3]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[7,5,2][1,3,4][0,8,6]]
Generated Nodes:
```

```
[[7,5,2][0,3,4][1,8,6]] - Already visited Node!
[[7,5,2][1,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 16 - [[1,7,2][0,5,4][8,3,6]]
Generated Nodes:
[[0,7,2][1,5,4][8,3,6]] - Already visited Node!
[[1,7,2][5,0,4][8,3,6]] - f(n) = 16 + 7 = 23
[[1,7,2][8,5,4][0,3,6]] - f(n) =
                                16 + 6 = 22
Node Chosen for Level 17 - [[7,5,2][4,3,6][0,8,1]]
Generated Nodes:
[[7,5,2][0,3,6][4,8,1]] - f(n) = 17 + 6 = 23
[[7,5,2][4,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[5,2,4][7,0,6][3,8,1]]
Generated Nodes:
[[5,0,4][7,2,6][3,8,1]] - f(n) = 17 + 6 = 23
[[5,2,4][7,6,0][3,8,1]] - f(n) = 17 + 6 = 23
[[5,2,4][0,7,6][3,8,1]] - f(n) = 17 + 5 = 22
[[5,2,4][7,8,6][3,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[7,2,4][1,5,6][8,3,0]]
Generated Nodes:
[[7,2,4][1,5,0][8,3,6]] - Already visited Node!
[[7,2,4][1,5,6][8,0,3]] - f(n) = 17 + 5 = 22
Node Chosen for Level 17 - [[7,2,4][3,0,5][1,8,6]]
Generated Nodes:
[[7,0,4][3,2,5][1,8,6]] - f(n) = 17 + 7 = 24
[[7,2,4][3,5,0][1,8,6]] - Already visited Node!
[[7,2,4][0,3,5][1,8,6]] - f(n) = 17 + 6 = 23
[[7,2,4][3,8,5][1,0,6]] - f(n) = 17 + 7 = 24
Node Chosen for Level 16 - [[7,5,2][4,6,0][8,3,1]]
Generated Nodes:
[[7,5,0][4,6,2][8,3,1]] - f(n) = 16 + 7 = 23
[[7,5,2][4,0,6][8,3,1]] - Already visited Node!
[[7,5,2][4,6,1][8,3,0]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[7,5,2][3,4,6][1,0,8]]
```

```
Generated Nodes:
[[7,5,2][3,0,6][1,4,8]] - f(n) = 16 + 7 = 23
[[7,5,2][3,4,6][1,8,0]] - Already visited Node!
[[7,5,2][3,4,6][0,1,8]] - f(n) = 16 + 7 = 23
Node Chosen for Level 18 - [[7,2,4][3,5,6][1,0,8]]
Generated Nodes:
[[7,2,4][3,0,6][1,5,8]] - f(n) = 18 + 6 = 24
[[7,2,4][3,5,6][1,8,0]] - Already visited Node!
[[7,2,4][3,5,6][0,1,8]] - f(n) = 18 + 5 = 23
Node Chosen for Level 18 - [[7,2,6][4,5,0][8,3,1]]
Generated Nodes:
[[7,2,0][4,5,6][8,3,1]] - Already visited Node!
[[7,2,6][4,0,5][8,3,1]] - f(n) = 18 + 6 = 24
[[7,2,6][4,5,1][8,3,0]] - f(n) = 18 + 5 = 23
Node Chosen for Level 15 - [[7,5,0][8,6,2][3,4,1]]
Generated Nodes:
[[7,0,5][8,6,2][3,4,1]] - f(n) = 15 + 8 = 23
[[7,5,2][8,6,0][3,4,1]] - Already visited Node!
Node Chosen for Level 15 - [[7,5,2][8,6,1][3,4,0]]
Generated Nodes:
[[7,5,2][8,6,0][3,4,1]] - Already visited Node!
[[7,5,2][8,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 17 - [[7,2,6][8,5,1][3,4,0]]
Generated Nodes:
[[7,2,6][8,5,0][3,4,1]] - Already visited Node!
[[7,2,6][8,5,1][3,0,4]] - f(n) = 17 + 6 = 23
Node Chosen for Level 15 - [[8,7,5][3,4,2][0,1,6]]
Generated Nodes:
[[8,7,5][0,4,2][3,1,6]] - Already visited Node!
[[8,7,5][3,4,2][1,0,6]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[7,4,0][8,2,5][3,1,6]]
```

```
Generated Nodes:
[[7,0,4][8,2,5][3,1,6]] - f(n) = 15 + 8 = 23
[[7,4,5][8,2,0][3,1,6]] - Already visited Node!
Node Chosen for Level 15 - [[0,4,5][7,8,2][3,1,6]]
Generated Nodes:
[[4,0,5][7,8,2][3,1,6]] - f(n) = 15 + 8 = 23
[[7,4,5][0,8,2][3,1,6]] - Already visited Node!
Node Chosen for Level 15 - [[7,4,5][3,8,2][0,1,6]]
Generated Nodes:
[[7,4,5][0,8,2][3,1,6]] - Already visited Node!
[[7,4,5][3,8,2][1,0,6]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[7,4,5][8,1,2][3,6,0]]
Generated Nodes:
[[7,4,5][8,1,0][3,6,2]] - f(n) = 15 + 8 = 23
[[7,4,5][8,1,2][3,0,6]] - Already visited Node!
Node Chosen for Level 15 - [[7,4,5][8,1,2][0,3,6]]
Generated Nodes:
[[7,4,5][0,1,2][8,3,6]] - f(n) = 15 + 8 = 23
[[7,4,5][8,1,2][3,0,6]] - Already visited Node!
Node Chosen for Level 15 - [[5,8,0][7,4,2][3,1,6]]
Generated Nodes:
[[5,0,8][7,4,2][3,1,6]] - f(n) = 15 + 8 = 23
[[5,8,2][7,4,0][3,1,6]] - Already visited Node!
Node Chosen for Level 15 - [[0,8,2][5,7,4][3,1,6]]
Generated Nodes:
[[8,0,2][5,7,4][3,1,6]] - f(n) = 15 + 8 = 23
[[5,8,2][0,7,4][3,1,6]] - Already visited Node!
Node Chosen for Level 15 - [[5,8,2][3,7,4][0,1,6]]
Generated Nodes:
```

```
[[5,8,2][0,7,4][3,1,6]] - Already visited Node!
[[5,8,2][3,7,4][1,0,6]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[5,8,2][7,1,4][3,6,0]]
Generated Nodes:
[[5,8,2][7,1,0][3,6,4]] - f(n) = 15 + 8 = 23
[[5,8,2][7,1,4][3,0,6]] - Already visited Node!
Node Chosen for Level 15 - [[5,8,2][7,1,4][0,3,6]]
Generated Nodes:
[[5,8,2][0,1,4][7,3,6]] - f(n) = 15 + 7 = 22
[[5,8,2][7,1,4][3,0,6]] - Already visited Node!
Node Chosen for Level 15 - [[7,5,0][3,8,2][1,6,4]]
Generated Nodes:
[[7,0,5][3,8,2][1,6,4]] - f(n) = 15 + 8 = 23
[[7,5,2][3,8,0][1,6,4]] - Already visited Node!
Node Chosen for Level 15 - [[7,5,2][3,0,8][1,6,4]]
Generated Nodes:
[[7,0,2][3,5,8][1,6,4]] - f(n) = 15 + 7 = 22
[[7,5,2][3,8,0][1,6,4]] - Already visited Node! [[7,5,2][0,3,8][1,6,4]] - f(n) = 15 + 8 = 23
[[7,5,2][3,6,8][1,0,4]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[0,7,5][8,1,2][3,6,4]]
Generated Nodes:
[[7,0,5][8,1,2][3,6,4]] - Already visited Node!
[[8,7,5][0,1,2][3,6,4]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[7,1,5][8,0,2][3,6,4]]
Generated Nodes:
[[7,0,5][8,1,2][3,6,4]] - Already visited Node!
[[7,1,5][8,2,0][3,6,4]] - f(n) = 15 + 8 = 23
[[7,1,5][0,8,2][3,6,4]] - f(n) = 15 + 8 = 23
[[7,1,5][8,6,2][3,0,4]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[0,5,2][7,8,1][3,6,4]]
Generated Nodes:
```

```
[[5,0,2][7,8,1][3,6,4]] - f(n) = 15 + 8 = 23
[[7,5,2][0,8,1][3,6,4]] - Already visited Node!
Node Chosen for Level 15 - [[7,5,2][3,8,1][0,6,4]]
Generated Nodes:
[[7,5,2][0,8,1][3,6,4]] - Already visited Node!
[[7,5,2][3,8,1][6,0,4]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[7,5,2][8,6,1][3,4,0]]
Generated Nodes:
[[7,5,2][8,6,0][3,4,1]] - Already visited Node!
[[7,5,2][8,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 15 - [[7,5,2][8,6,1][0,3,4]]
Generated Nodes:
[[7,5,2][0,6,1][8,3,4]] - f(n) = 15 + 8 = 23
[[7,5,2][8,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 15 - [[5,1,2][7,0,4][8,3,6]]
Generated Nodes:
[[5,0,2][7,1,4][8,3,6]] - Already visited Node!
[[5,1,2][7,4,0][8,3,6]] - f(n) = 15 + 8 = 23
[[5,1,2][0,7,4][8,3,6]] - f(n) = 15 + 8 = 23
[[5,1,2][7,3,4][8,0,6]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[7,5,0][1,4,2][8,3,6]]
Generated Nodes:
[[7,0,5][1,4,2][8,3,6]] - f(n) = 15 + 8 = 23
[[7,5,2][1,4,0][8,3,6]] - Already visited Node!
Node Chosen for Level 15 - [[7,5,2][1,3,4][8,6,0]]
Generated Nodes:
[[7,5,2][1,3,0][8,6,4]] - f(n) = 15 + 8 = 23
[[7,5,2][1,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 16 - [[5,0,2][7,8,6][3,4,1]]
Generated Nodes:
```

```
[[5,2,0][7,8,6][3,4,1]] - f(n) = 16 + 6 = 22
[[0,5,2][7,8,6][3,4,1]] - Already visited Node!
[[5,8,2][7,0,6][3,4,1]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[7,5,2][3,8,6][4,0,1]]
Generated Nodes:
[[7,5,2][3,0,6][4,8,1]] - f(n) = 16 + 6 = 22
[[7,5,2][3,8,6][4,1,0]] - f(n) = 16 + 7 = 23
[[7,5,2][3,8,6][0,4,1]] - Already visited Node!
Node Chosen for Level 16 - [[5,0,2][7,4,6][8,3,1]]
Generated Nodes:
[[5,2,0][7,4,6][8,3,1]] - f(n) = 16 + 6 = 22
[[0,5,2][7,4,6][8,3,1]] - Already visited Node!
[[5,4,2][7,0,6][8,3,1]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[5,2,4][0,7,8][3,1,6]]
Generated Nodes:
[[0,2,4][5,7,8][3,1,6]] - f(n) = 16 + 7 = 23
[[5,2,4][7,0,8][3,1,6]] - Already visited Node!
[[5,2,4][3,7,8][0,1,6]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[5,2,4][7,1,8][3,0,6]]
Generated Nodes:
[[5,2,4][7,0,8][3,1,6]] - Already visited Node!
[[5,2,4][7,1,8][3,6,0]] - f(n) = 16 + 7 = 23
[[5,2,4][7,1,8][0,3,6]] - f(n) =
                                  16 + 7 = 23
Node Chosen for Level 16 - [[7,0,5][3,4,2][1,8,6]]
Generated Nodes:
[[7,5,0][3,4,2][1,8,6]] - Already visited Node!
[[0,7,5][3,4,2][1,8,6]] - f(n) = 16 + 7 = 23
[[7,4,5][3,0,2][1,8,6]] - f(n) =
                                  16 + 7 = 23
Node Chosen for Level 16 - [[5,0,2][7,3,4][1,8,6]]
Generated Nodes:
[[5,2,0][7,3,4][1,8,6]] - f(n) = 16 + 6 = 22
[[0,5,2][7,3,4][1,8,6]] - Already visited Node!
[[5,3,2][7,0,4][1,8,6]] - f(n) = 16 + 7 = 23
```

```
Node Chosen for Level 17 - [[8,7,2][3,5,6][0,4,1]]
Generated Nodes:
[[8,7,2][0,5,6][3,4,1]] - Already visited Node!
[[8,7,2][3,5,6][4,0,1]] - f(n) = 17 + 6 = 23
Node Chosen for Level 17 - [[3,7,2][1,5,4][0,8,6]]
Generated Nodes:
[[3,7,2][0,5,4][1,8,6]] - Already visited Node!
[[3,7,2][1,5,4][8,0,6]] - f(n) = 17 + 7 = 24
Node Chosen for Level 16 - [[8,7,2][0,5,1][3,6,4]]
Generated Nodes:
[[0,7,2][8,5,1][3,6,4]] - Already visited Node!
[[8,7,2][5,0,1][3,6,4]] - f(n) = 16 + 8 = 24
[[8,7,2][3,5,1][0,6,4]] - f(n) = 16 + 7 = 23
Node Chosen for Level 17 - [[7,5,2][4,3,6][8,1,0]]
Generated Nodes:
[[7,5,2][4,3,0][8,1,6]] - f(n) = 17 + 7 = 24
[[7,5,2][4,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[5,2,4][7,8,6][0,3,1]]
Generated Nodes:
[[5,2,4][0,8,6][7,3,1]] - f(n) = 17 + 5 = 22
[[5,2,4][7,8,6][3,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[7,2,1][8,5,4][3,6,0]]
Generated Nodes:
[[7,2,1][8,5,0][3,6,4]] - Already visited Node!
[[7,2,1][8,5,4][3,0,6]] - f(n) = 17 + 6 = 23
Node Chosen for Level 16 - [[8,0,5][4,7,2][3,1,6]]
Generated Nodes:
[[8,5,0][4,7,2][3,1,6]] - f(n) = 16 + 7 = 23
[[0,8,5][4,7,2][3,1,6]] - f(n) = 16 + 7 = 23
[[8,7,5][4,0,2][3,1,6]] - Already visited Node!
Node Chosen for Level 16 - [[8,7,5][4,2,0][3,1,6]]
```

```
Generated Nodes:
[[8,7,0][4,2,5][3,1,6]] - f(n) = 16 + 7 = 23
[[8,7,5][4,0,2][3,1,6]] - Already visited Node!
[[8,7,5][4,2,6][3,1,0]] - f(n) = 16 + 6 = 22
Node Chosen for Level 16 - [[8,7,5][4,1,2][3,0,6]]
Generated Nodes:
[[8,7,5][4,0,2][3,1,6]] - Already visited Node!
[[8,7,5][4,1,2][3,6,0]] - f(n) = 16 + 7 = 23
[[8,7,5][4,1,2][0,3,6]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[7,4,5][8,2,6][3,0,1]]
Generated Nodes:
[[7,4,5][8,0,6][3,2,1]] - f(n) = 16 + 7 = 23
[[7,4,5][8,2,6][3,1,0]] - Already visited Node!
[[7,4,5][8,2,6][0,3,1]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[5,8,2][7,4,6][3,0,1]]
Generated Nodes:
[[5,8,2][7,0,6][3,4,1]] - f(n) = 16 + 7 = 23
[[5,8,2][7,4,6][3,1,0]] - Already visited Node!
[[5,8,2][7,4,6][0,3,1]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[5,2,4][7,1,0][8,3,6]]
Generated Nodes:
[[5,2,0][7,1,4][8,3,6]] - Already visited Node!
[[5,2,4][7,0,1][8,3,6]] - f(n) = 16 + 7 = 23
[[5,2,4][7,1,6][8,3,0]] - f(n) = 16 + 6 = 22
Node Chosen for Level 16 - [[7,5,2][1,4,6][8,0,3]]
Generated Nodes:
[[7,5,2][1,0,6][8,4,3]] - f(n) = 16 + 7 = 23
[[7,5,2][1,4,6][8,3,0]] - Already visited Node!
[[7,5,2][1,4,6][0,8,3]] - f(n) = 16 + 6 = 22
Node Chosen for Level 17 - [[1,7,2][8,5,4][0,3,6]]
Generated Nodes:
```

[[1,7,2][0,5,4][8,3,6]] - Already visited Node!

```
[[1,7,2][8,5,4][3,0,6]] - f(n) = 17 + 6 = 23
Node Chosen for Level 18 - [[5,2,4][0,7,6][3,8,1]]
Generated Nodes:
[[0,2,4][5,7,6][3,8,1]] - f(n) = 18 + 5 = 23
[[5,2,4][7,0,6][3,8,1]] - Already visited Node!
[[5,2,4][3,7,6][0,8,1]] - f(n) = 18 + 5 = 23
Node Chosen for Level 18 - [[7,2,4][1,5,6][8,0,3]]
Generated Nodes:
[[7,2,4][1,0,6][8,5,3]] - f(n) = 18 + 6 = 24
[[7,2,4][1,5,6][8,3,0]] - Already visited Node!
[[7,2,4][1,5,6][0,8,3]] - f(n) = 18 + 4 = 22
Node Chosen for Level 16 - [[5,8,2][0,1,4][7,3,6]]
Generated Nodes:
[[0,8,2][5,1,4][7,3,6]] - f(n) = 16 + 7 = 23
[[5,8,2][1,0,4][7,3,6]] - f(n) = 16 + 7 = 23
[[5,8,2][7,1,4][0,3,6]] - Already visited Node!
Node Chosen for Level 16 - [[7,0,2][3,5,8][1,6,4]]
Generated Nodes:
[[7,2,0][3,5,8][1,6,4]] - f(n) = 16 + 6 = 22
[[0,7,2][3,5,8][1,6,4]] - f(n) = 16 + 7 = 23
[[7,5,2][3,0,8][1,6,4]] - Already visited Node!
Node Chosen for Level 17 - [[5,2,0][7,8,6][3,4,1]]
Generated Nodes:
[[5,0,2][7,8,6][3,4,1]] - Already visited Node!
[[5,2,6][7,8,0][3,4,1]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[7,5,2][3,0,6][4,8,1]]
Generated Nodes:
[[7,0,2][3,5,6][4,8,1]] - f(n) =
                                17 + 5 = 22
[[7,5,2][3,6,0][4,8,1]] - f(n) = 17 + 7 = 24
[[7,5,2][0,3,6][4,8,1]] - f(n) = 17 + 6 = 23
[[7,5,2][3,8,6][4,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[5,2,0][7,4,6][8,3,1]]
```

```
Generated Nodes:
[[5,0,2][7,4,6][8,3,1]] - Already visited Node!
[[5,2,6][7,4,0][8,3,1]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[5,2,0][7,3,4][1,8,6]]
Generated Nodes:
[[5,0,2][7,3,4][1,8,6]] - Already visited Node!
[[5,2,4][7,3,0][1,8,6]] - f(n) = 17 + 6 = 23
Node Chosen for Level 18 - [[5,2,4][0,8,6][7,3,1]]
Generated Nodes:
[[0,2,4][5,8,6][7,3,1]] - f(n) = 18 + 5 = 23
[[5,2,4][8,0,6][7,3,1]] - f(n) = 18 + 5 = 23
[[5,2,4][7,8,6][0,3,1]] - Already visited Node!
Node Chosen for Level 17 - [[8,7,5][4,2,6][3,1,0]]
Generated Nodes:
[[8,7,5][4,2,0][3,1,6]] - Already visited Node!
[[8,7,5][4,2,6][3,0,1]] - f(n) = 17 + 6 = 23
Node Chosen for Level 17 - [[5,2,4][7,1,6][8,3,0]]
Generated Nodes:
[[5,2,4][7,1,0][8,3,6]] - Already visited Node!
[[5,2,4][7,1,6][8,0,3]] - f(n) = 17 + 6 = 23
Node Chosen for Level 17 - [[7,5,2][1,4,6][0,8,3]]
Generated Nodes:
[[7,5,2][0,4,6][1,8,3]] - f(n) = 17 + 6 = 23
[[7,5,2][1,4,6][8,0,3]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,4][1,5,6][0,8,3]]
Generated Nodes:
[[7,2,4][0,5,6][1,8,3]] - f(n) = 19 + 4 = 23
[[7,2,4][1,5,6][8,0,3]] - Already visited Node!
Node Chosen for Level 17 - [[7,2,0][3,5,8][1,6,4]]
Generated Nodes:
```

```
[[7,0,2][3,5,8][1,6,4]] - Already visited Node!
[[7,2,8][3,5,0][1,6,4]] - f(n) = 17 + 6 = 23
Node Chosen for Level 18 - [[7,0,2][3,5,6][4,8,1]]
Generated Nodes:
[[7,2,0][3,5,6][4,8,1]] - f(n) = 18 + 4 = 22
[[0,7,2][3,5,6][4,8,1]] - f(n) = 18 + 5 = 23
[[7,5,2][3,0,6][4,8,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,0][3,5,6][4,8,1]]
Generated Nodes:
[[7,0,2][3,5,6][4,8,1]] - Already visited Node!
[[7,2,6][3,5,0][4,8,1]] - f(n) = 19 + 5 = 24
Node Chosen for Level 17 - [[7,2,6][8,0,5][3,4,1]]
Generated Nodes:
[[7,0,6][8,2,5][3,4,1]] - f(n) = 17 + 8 = 25
[[7,2,6][8,5,0][3,4,1]] - Already visited Node!
[[7,2,6][0,8,5][3,4,1]] - f(n) = 17 + 7 = 24
[[7,2,6][8,4,5][3,0,1]] - f(n) =
                                  17 + 7 = 24
Node Chosen for Level 16 - [[5,0,4][7,2,8][3,1,6]]
Generated Nodes:
[[5,4,0][7,2,8][3,1,6]] - f(n) = 16 + 8 = 24
[[0,5,4][7,2,8][3,1,6]] - f(n) = 16 + 8 = 24
[[5,2,4][7,0,8][3,1,6]] - Already visited Node!
Node Chosen for Level 17 - [[8,7,2][5,0,6][3,4,1]]
Generated Nodes:
[[8,0,2][5,7,6][3,4,1]] - f(n) = 17 + 7 = 24
[[8,7,2][5,6,0][3,4,1]] - f(n) = 17 + 8 = 25
[[8,7,2][0,5,6][3,4,1]] - Already visited Node!
[[8,7,2][5,4,6][3,0,1]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[3,7,2][5,0,4][1,8,6]]
Generated Nodes:
[[3,0,2][5,7,4][1,8,6]] - f(n) = 17 + 7 = 24
[[3,7,2][5,4,0][1,8,6]] - f(n) = 17 + 7 = 24
[[3,7,2][0,5,4][1,8,6]] - Already visited Node!
[[3,7,2][5,8,4][1,0,6]] - f(n) = 17 + 8 = 25
```

```
Node Chosen for Level 17 - [[7,2,1][8,0,5][3,6,4]]
Generated Nodes:
[[7,0,1][8,2,5][3,6,4]] - f(n) = 17 + 8 = 25
[[7,2,1][8,5,0][3,6,4]] - Already visited Node!
[[7,2,1][0,8,5][3,6,4]] - f(n) = 17 + 7 = 24
[[7,2,1][8,6,5][3,0,4]] - f(n) =
                                  17 + 7 = 24
Node Chosen for Level 17 - [[7,2,4][1,0,5][8,3,6]]
Generated Nodes:
[[7,0,4][1,2,5][8,3,6]] - f(n) = 17 + 8 = 25
[[7,2,4][1,5,0][8,3,6]] - Already visited Node!
[[7,2,4][0,1,5][8,3,6]] - f(n) = 17 + 7 = 24
[[7,2,4][1,3,5][8,0,6]] - f(n) =
                                  17 + 7 = 24
Node Chosen for Level 18 - [[4,7,2][0,5,6][8,3,1]]
Generated Nodes:
[[0,7,2][4,5,6][8,3,1]] - Already visited Node!
[[4,7,2][5,0,6][8,3,1]] - f(n) = 18 + 7 = 25
[[4,7,2][8,5,6][0,3,1]] - f(n) = 18 + 6 = 24
Node Chosen for Level 17 - [[1,7,2][5,0,4][8,3,6]]
Generated Nodes:
[[1,0,2][5,7,4][8,3,6]] - f(n) = 17 + 7 = 24
[[1,7,2][5,4,0][8,3,6]] - f(n) = 17 + 7 = 24
[[1,7,2][0,5,4][8,3,6]] - Already visited Node!
[[1,7,2][5,3,4][8,0,6]] - f(n) =
                                  17 + 7 = 24
Node Chosen for Level 18 - [[7,5,2][0,3,6][4,8,1]]
Generated Nodes:
[[0,5,2][7,3,6][4,8,1]] - f(n) = 18 + 6 = 24
[[7,5,2][3,0,6][4,8,1]] - Already visited Node!
[[7,5,2][4,3,6][0,8,1]] - Already visited Node!
Node Chosen for Level 18 - [[5,0,4][7,2,6][3,8,1]]
Generated Nodes:
[[5,4,0][7,2,6][3,8,1]] - f(n) = 18 + 6 = 24
[[0,5,4][7,2,6][3,8,1]] - f(n) = 18 + 6 = 24
[[5,2,4][7,0,6][3,8,1]] - Already visited Node!
```

```
Node Chosen for Level 18 - [[5,2,4][7,6,0][3,8,1]]
Generated Nodes:
[[5,2,0][7,6,4][3,8,1]] - f(n) = 18 + 6 = 24
[[5,2,4][7,0,6][3,8,1]] - Already visited Node!
[[5,2,4][7,6,1][3,8,0]] - f(n) = 18 + 6 = 24
Node Chosen for Level 18 - [[7,2,4][0,3,5][1,8,6]]
Generated Nodes:
[[0,2,4][7,3,5][1,8,6]] - f(n) = 18 + 6 = 24
[[7,2,4][3,0,5][1,8,6]] - Already visited Node!
[[7,2,4][1,3,5][0,8,6]] - f(n) = 18 + 6 = 24
Node Chosen for Level 17 - [[7,5,0][4,6,2][8,3,1]]
Generated Nodes:
[[7,0,5][4,6,2][8,3,1]] - f(n) = 17 + 7 = 24
[[7,5,2][4,6,0][8,3,1]] - Already visited Node!
Node Chosen for Level 17 - [[7,5,2][4,6,1][8,3,0]]
Generated Nodes:
[[7,5,2][4,6,0][8,3,1]] - Already visited Node!
[[7,5,2][4,6,1][8,0,3]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[7,5,2][3,0,6][1,4,8]]
Generated Nodes:
[[7,0,2][3,5,6][1,4,8]] - f(n) = 17 + 6 = 23
[[7,5,2][3,6,0][1,4,8]] - f(n) = 17 + 8 = 25
[[7,5,2][0,3,6][1,4,8]] - f(n) = 17 + 7 = 24
[[7,5,2][3,4,6][1,0,8]] - Already visited Node!
Node Chosen for Level 17 - [[7,5,2][3,4,6][0,1,8]]
Generated Nodes:
[[7,5,2][0,4,6][3,1,8]] - f(n) = 17 + 7 = 24
[[7,5,2][3,4,6][1,0,8]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,4][3,5,6][0,1,8]]
Generated Nodes:
```

[[7,2,4][0,5,6][3,1,8]] - f(n) = 19 + 5 = 24[[7,2,4][3,5,6][1,0,8]] - Already visited Node!

```
Node Chosen for Level 19 - [[7,2,6][4,5,1][8,3,0]]
Generated Nodes:
[[7,2,6][4,5,0][8,3,1]] - Already visited Node!
[[7,2,6][4,5,1][8,0,3]] - f(n) = 19 + 5 = 24
Node Chosen for Level 16 - [[7,0,5][8,6,2][3,4,1]]
Generated Nodes:
[[7,5,0][8,6,2][3,4,1]] - Already visited Node!
[[0,7,5][8,6,2][3,4,1]] - f(n) = 16 + 8 = 24
[[7,6,5][8,0,2][3,4,1]] - f(n) =
                                  16 + 8 = 24
Node Chosen for Level 18 - [[7,2,6][8,5,1][3,0,4]]
Generated Nodes:
[[7,2,6][8,0,1][3,5,4]] - f(n) = 18 + 7 = 25
[[7,2,6][8,5,1][3,4,0]] - Already visited Node!
[[7,2,6][8,5,1][0,3,4]] - f(n) = 18 + 6 = 24
Node Chosen for Level 16 - [[8,7,5][3,4,2][1,0,6]]
Generated Nodes:
[[8,7,5][3,0,2][1,4,6]] - f(n) = 16 + 8 = 24
[[8,7,5][3,4,2][1,6,0]] - f(n) = 16 + 8 = 24
[[8,7,5][3,4,2][0,1,6]] - Already visited Node!
Node Chosen for Level 16 - [[7,0,4][8,2,5][3,1,6]]
Generated Nodes:
[[7,4,0][8,2,5][3,1,6]] - Already visited Node!
[[0,7,4][8,2,5][3,1,6]] - f(n) = 16 + 8 = 24
[[7,2,4][8,0,5][3,1,6]] - Already visited Node!
Node Chosen for Level 16 - [[4,0,5][7,8,2][3,1,6]]
Generated Nodes:
[[4,5,0][7,8,2][3,1,6]] - f(n) = 16 + 8 = 24
[[0,4,5][7,8,2][3,1,6]] - Already visited Node!
[[4,8,5][7,0,2][3,1,6]] - f(n) = 16 + 8 = 24
Node Chosen for Level 16 - [[7,4,5][3,8,2][1,0,6]]
Generated Nodes:
```

```
[[7,4,5][3,0,2][1,8,6]] - f(n) = 16 + 7 = 23
[[7,4,5][3,8,2][1,6,0]] - f(n) = 16 + 8 = 24
[[7,4,5][3,8,2][0,1,6]] - Already visited Node!
Node Chosen for Level 16 - [[7,4,5][8,1,0][3,6,2]]
Generated Nodes:
[[7,4,0][8,1,5][3,6,2]] - f(n) = 16 + 8 = 24
[[7,4,5][8,0,1][3,6,2]] - f(n) = 16 + 8 = 24
[[7,4,5][8,1,2][3,6,0]] - Already visited Node!
Node Chosen for Level 16 - [[7,4,5][0,1,2][8,3,6]]
Generated Nodes:
[[0,4,5][7,1,2][8,3,6]] - f(n) = 16 + 8 = 24
[[7,4,5][1,0,2][8,3,6]] - f(n) = 16 + 8 = 24
[[7,4,5][8,1,2][0,3,6]] - Already visited Node!
Node Chosen for Level 16 - [[5,0,8][7,4,2][3,1,6]]
Generated Nodes:
[[5,8,0][7,4,2][3,1,6]] - Already visited Node!
[[0,5,8][7,4,2][3,1,6]] - f(n) = 16 + 8 = 24
[[5,4,8][7,0,2][3,1,6]] - f(n) = 16 + 8 = 24
Node Chosen for Level 16 - [[8,0,2][5,7,4][3,1,6]]
Generated Nodes:
[[8,2,0][5,7,4][3,1,6]] - f(n) = 16 + 7 = 23
[[0,8,2][5,7,4][3,1,6]] - Already visited Node!
[[8,7,2][5,0,4][3,1,6]] - f(n) = 16 + 8 = 24
Node Chosen for Level 16 - [[5,8,2][3,7,4][1,0,6]]
Generated Nodes:
[[5,8,2][3,0,4][1,7,6]] - f(n) = 16 + 8 = 24
[[5,8,2][3,7,4][1,6,0]] - f(n) = 16 + 8 = 24
[[5,8,2][3,7,4][0,1,6]] - Already visited Node!
Node Chosen for Level 16 - [[5,8,2][7,1,0][3,6,4]]
Generated Nodes:
[[5,8,0][7,1,2][3,6,4]] - f(n) = 16 + 8 = 24
[[5,8,2][7,0,1][3,6,4]] - f(n) = 16 + 8 = 24
[[5,8,2][7,1,4][3,6,0]] - Already visited Node!
```

```
Node Chosen for Level 16 - [[7,0,5][3,8,2][1,6,4]]
Generated Nodes:
[[7,5,0][3,8,2][1,6,4]] - Already visited Node!
[[0,7,5][3,8,2][1,6,4]] - f(n) = 16 + 8 = 24
[[7,8,5][3,0,2][1,6,4]] - f(n) =
                                  16 + 8 = 24
Node Chosen for Level 16 - [[7,5,2][0,3,8][1,6,4]]
Generated Nodes:
[[0,5,2][7,3,8][1,6,4]] - f(n) = 16 + 8 = 24
[[7,5,2][3,0,8][1,6,4]] - Already visited Node!
[[7,5,2][1,3,8][0,6,4]] - f(n) = 16 + 8 = 24
Node Chosen for Level 16 - [[7,5,2][3,6,8][1,0,4]]
Generated Nodes:
[[7,5,2][3,0,8][1,6,4]] - Already visited Node!
[[7,5,2][3,6,8][1,4,0]] - f(n) = 16 + 8 = 24
[[7,5,2][3,6,8][0,1,4]] - f(n) =
                                  16 + 8 = 24
Node Chosen for Level 16 - [[8,7,5][0,1,2][3,6,4]]
Generated Nodes:
[[0,7,5][8,1,2][3,6,4]] - Already visited Node!
[[8,7,5][1,0,2][3,6,4]] - f(n) = 16 + 8 = 24
[[8,7,5][3,1,2][0,6,4]] - f(n) =
                                  16 + 8 = 24
Node Chosen for Level 16 - [[7,1,5][8,2,0][3,6,4]]
Generated Nodes:
[[7,1,0][8,2,5][3,6,4]] - f(n) = 16 + 8 = 24
[[7,1,5][8,0,2][3,6,4]] - Already visited Node!
[[7,1,5][8,2,4][3,6,0]] - f(n) = 16 + 8 = 24
Node Chosen for Level 16 - [[7,1,5][0,8,2][3,6,4]]
Generated Nodes:
[[0,1,5][7,8,2][3,6,4]] - f(n) = 16 + 8 = 24
[[7,1,5][8,0,2][3,6,4]] - Already visited Node!
[[7,1,5][3,8,2][0,6,4]] - f(n) = 16 + 8 = 24
Node Chosen for Level 16 - [[7,1,5][8,6,2][3,0,4]]
Generated Nodes:
```

```
[[7,1,5][8,0,2][3,6,4]] - Already visited Node!
[[7,1,5][8,6,2][3,4,0]] - f(n) = 16 + 8 = 24
[[7,1,5][8,6,2][0,3,4]] - f(n) = 16 + 8 = 24
Node Chosen for Level 16 - [[5,0,2][7,8,1][3,6,4]]
Generated Nodes:
[[5,2,0][7,8,1][3,6,4]] - f(n) = 16 + 7 = 23
[[0,5,2][7,8,1][3,6,4]] - Already visited Node!
[[5,8,2][7,0,1][3,6,4]] - f(n) = 16 + 8 = 24
Node Chosen for Level 16 - [[7,5,2][3,8,1][6,0,4]]
Generated Nodes:
[[7,5,2][3,0,1][6,8,4]] - f(n) = 16 + 7 = 23
[[7,5,2][3,8,1][6,4,0]] - f(n) = 16 + 8 = 24
[[7,5,2][3,8,1][0,6,4]] - Already visited Node!
Node Chosen for Level 16 - [[7,5,2][0,6,1][8,3,4]]
Generated Nodes:
[[0,5,2][7,6,1][8,3,4]] - f(n) = 16 + 8 = 24
[[7,5,2][6,0,1][8,3,4]] - f(n) = 16 + 8 = 24
[[7,5,2][8,6,1][0,3,4]] - Already visited Node!
Node Chosen for Level 16 - [[5,1,2][7,4,0][8,3,6]]
Generated Nodes:
[[5,1,0][7,4,2][8,3,6]] - f(n) = 16 + 8 = 24
[[5,1,2][7,0,4][8,3,6]] - Already visited Node!
[[5,1,2][7,4,6][8,3,0]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[5,1,2][0,7,4][8,3,6]]
Generated Nodes:
[[0,1,2][5,7,4][8,3,6]] - f(n) = 16 + 8 = 24
[[5,1,2][7,0,4][8,3,6]] - Already visited Node!
[[5,1,2][8,7,4][0,3,6]] - f(n) = 16 + 8 = 24
Node Chosen for Level 16 - [[5,1,2][7,3,4][8,0,6]]
Generated Nodes:
[[5,1,2][7,0,4][8,3,6]] - Already visited Node!
[[5,1,2][7,3,4][8,6,0]] - f(n) = 16 + 8 = 24
[[5,1,2][7,3,4][0,8,6]] - f(n) = 16 + 7 = 23
```

```
Node Chosen for Level 16 - [[7,0,5][1,4,2][8,3,6]]
Generated Nodes:
[[7,5,0][1,4,2][8,3,6]] - Already visited Node!
[[0,7,5][1,4,2][8,3,6]] - f(n) = 16 + 8 = 24
[[7,4,5][1,0,2][8,3,6]] - f(n) = 16 + 8 = 24
Node Chosen for Level 16 - [[7,5,2][1,3,0][8,6,4]]
Generated Nodes:
[[7,5,0][1,3,2][8,6,4]] - f(n) = 16 + 8 = 24
[[7,5,2][1,0,3][8,6,4]] - f(n) = 16 + 8 = 24
[[7,5,2][1,3,4][8,6,0]] - Already visited Node!
Node Chosen for Level 17 - [[5,8,2][7,0,6][3,4,1]]
Generated Nodes:
[[5,0,2][7,8,6][3,4,1]] - Already visited Node!
[[5,8,2][7,6,0][3,4,1]] - f(n) = 17 + 8 = 25
[[5,8,2][0,7,6][3,4,1]] - f(n) = 17 + 7 = 24
[[5,8,2][7,4,6][3,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[7,5,2][3,8,6][4,1,0]]
Generated Nodes:
[[7,5,2][3,8,0][4,1,6]] - f(n) = 17 + 8 = 25
[[7,5,2][3,8,6][4,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[5,4,2][7,0,6][8,3,1]]
Generated Nodes:
[[5,0,2][7,4,6][8,3,1]] - Already visited Node!
[[5,4,2][7,6,0][8,3,1]] - f(n) = 17 + 8 = 25
[[5,4,2][0,7,6][8,3,1]] - f(n) = 17 + 7 = 24
[[5,4,2][7,3,6][8,0,1]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[0,2,4][5,7,8][3,1,6]]
Generated Nodes:
[[2,0,4][5,7,8][3,1,6]] - f(n) = 17 + 8 = 25
[[5,2,4][0,7,8][3,1,6]] - Already visited Node!
Node Chosen for Level 17 - [[5,2,4][3,7,8][0,1,6]]
Generated Nodes:
```

```
[[5,2,4][0,7,8][3,1,6]] - Already visited Node!
[[5,2,4][3,7,8][1,0,6]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[5,2,4][7,1,8][3,6,0]]
Generated Nodes:
[[5,2,4][7,1,0][3,6,8]] - f(n) = 17 + 7 = 24
[[5,2,4][7,1,8][3,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[5,2,4][7,1,8][0,3,6]]
Generated Nodes:
[[5,2,4][0,1,8][7,3,6]] - f(n) = 17 + 6 = 23
[[5,2,4][7,1,8][3,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[0,7,5][3,4,2][1,8,6]]
Generated Nodes:
[[7,0,5][3,4,2][1,8,6]] - Already visited Node!
[[3,7,5][0,4,2][1,8,6]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[7,4,5][3,0,2][1,8,6]]
Generated Nodes:
[[7,0,5][3,4,2][1,8,6]] - Already visited Node!
[[7,4,5][3,2,0][1,8,6]] - f(n) = 17 + 7 = 24
[[7,4,5][0,3,2][1,8,6]] - f(n) = 17 + 7 = 24
[[7,4,5][3,8,2][1,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[5,3,2][7,0,4][1,8,6]]
Generated Nodes:
[[5,0,2][7,3,4][1,8,6]] - Already visited Node!
[[5,3,2][7,4,0][1,8,6]] - f(n) = 17 + 7 = 24
[[5,3,2][0,7,4][1,8,6]] - f(n) = 17 + 7 = 24
[[5,3,2][7,8,4][1,0,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 18 - [[8,7,2][3,5,6][4,0,1]]
Generated Nodes:
[[8,7,2][3,0,6][4,5,1]] - f(n) = 18 + 7 = 25
[[8,7,2][3,5,6][4,1,0]] - f(n) = 18 + 6 = 24
[[8,7,2][3,5,6][0,4,1]] - Already visited Node!
Node Chosen for Level 17 - [[8,7,2][3,5,1][0,6,4]]
```

```
[[8,7,2][0,5,1][3,6,4]] - Already visited Node!
[[8,7,2][3,5,1][6,0,4]] - f(n) = 17 + 7 = 24
Node Chosen for Level 18 - [[7,2,1][8,5,4][3,0,6]]
Generated Nodes:
[[7,2,1][8,0,4][3,5,6]] - f(n) = 18 + 7 = 25
[[7,2,1][8,5,4][3,6,0]] - Already visited Node!
[[7,2,1][8,5,4][0,3,6]] - f(n) = 18 + 6 = 24
Node Chosen for Level 17 - [[8,5,0][4,7,2][3,1,6]]
Generated Nodes:
[[8,0,5][4,7,2][3,1,6]] - Already visited Node!
[[8,5,2][4,7,0][3,1,6]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[0,8,5][4,7,2][3,1,6]]
Generated Nodes:
[[8,0,5][4,7,2][3,1,6]] - Already visited Node!
[[4,8,5][0,7,2][3,1,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[8,7,0][4,2,5][3,1,6]]
Generated Nodes:
[[8,0,7][4,2,5][3,1,6]] - f(n) = 17 + 7 = 24
[[8,7,5][4,2,0][3,1,6]] - Already visited Node!
Node Chosen for Level 17 - [[8,7,5][4,1,2][3,6,0]]
Generated Nodes:
[[8,7,5][4,1,0][3,6,2]] - f(n) = 17 + 7 = 24
[[8,7,5][4,1,2][3,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[8,7,5][4,1,2][0,3,6]]
Generated Nodes:
[[8,7,5][0,1,2][4,3,6]] - f(n) = 17 + 8 = 25
[[8,7,5][4,1,2][3,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[7,4,5][8,0,6][3,2,1]]
Generated Nodes:
```

Generated Nodes:

```
[[7,0,5][8,4,6][3,2,1]] - f(n) = 17 + 7 = 24
[[7,4,5][8,6,0][3,2,1]] - f(n) = 17 + 8 = 25
[[7,4,5][0,8,6][3,2,1]] - f(n) = 17 + 7 = 24
[[7,4,5][8,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[7,4,5][8,2,6][0,3,1]]
Generated Nodes:
[[7,4,5][0,2,6][8,3,1]] - f(n) = 17 + 7 = 24
[[7,4,5][8,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[5,8,2][7,0,6][3,4,1]]
Generated Nodes:
[[5,0,2][7,8,6][3,4,1]] - Already visited Node!
[[5,8,2][7,6,0][3,4,1]] - f(n) = 17 + 8 = 25
[[5,8,2][0,7,6][3,4,1]] - f(n) = 17 + 7 = 24
[[5,8,2][7,4,6][3,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[5,8,2][7,4,6][0,3,1]]
Generated Nodes:
[[5,8,2][0,4,6][7,3,1]] - f(n) = 17 + 6 = 23
[[5,8,2][7,4,6][3,0,1]] - Already visited Node!
Node Chosen for Level 17 - [[5,2,4][7,0,1][8,3,6]]
Generated Nodes:
[[5,0,4][7,2,1][8,3,6]] - f(n) = 17 + 8 = 25
[[5,2,4][7,1,0][8,3,6]] - Already visited Node! [[5,2,4][0,7,1][8,3,6]] - f(n) = 17 + 7 = 24
[[5,2,4][7,3,1][8,0,6]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[7,5,2][1,0,6][8,4,3]]
Generated Nodes:
[[7,0,2][1,5,6][8,4,3]] - f(n) = 17 + 6 = 23
[[7,5,2][1,6,0][8,4,3]] - f(n) = 17 + 8 = 25
[[7,5,2][0,1,6][8,4,3]] - f(n) = 17 + 7 = 24
[[7,5,2][1,4,6][8,0,3]] - Already visited Node!
Node Chosen for Level 18 - [[1,7,2][8,5,4][3,0,6]]
Generated Nodes:
[[1,7,2][8,0,4][3,5,6]] - f(n) = 18 + 7 = 25
[[1,7,2][8,5,4][3,6,0]] - f(n) = 18 + 6 = 24
```

```
[[1,7,2][8,5,4][0,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,2,4][5,7,6][3,8,1]]
Generated Nodes:
[[2,0,4][5,7,6][3,8,1]] - f(n) = 19 + 6 = 25
[[5,2,4][0,7,6][3,8,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][3,7,6][0,8,1]]
Generated Nodes:
[[5,2,4][0,7,6][3,8,1]] - Already visited Node!
[[5,2,4][3,7,6][8,0,1]] - f(n) = 19 + 6 = 25
Node Chosen for Level 17 - [[0,8,2][5,1,4][7,3,6]]
Generated Nodes:
[[8,0,2][5,1,4][7,3,6]] - f(n) = 17 + 7 = 24
[[5,8,2][0,1,4][7,3,6]] - Already visited Node!
Node Chosen for Level 17 - [[5,8,2][1,0,4][7,3,6]]
Generated Nodes:
[[5,0,2][1,8,4][7,3,6]] - f(n) = 17 + 7 = 24
[[5,8,2][1,4,0][7,3,6]] - f(n) = 17 + 7 = 24
[[5,8,2][0,1,4][7,3,6]] - Already visited Node!
[[5,8,2][1,3,4][7,0,6]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[0,7,2][3,5,8][1,6,4]]
Generated Nodes:
[[7,0,2][3,5,8][1,6,4]] - Already visited Node!
[[3,7,2][0,5,8][1,6,4]] - f(n) = 17 + 7 = 24
Node Chosen for Level 18 - [[7,5,2][0,3,6][4,8,1]]
Generated Nodes:
[[0,5,2][7,3,6][4,8,1]] - f(n) = 18 + 6 = 24
[[7,5,2][3,0,6][4,8,1]] - Already visited Node!
[[7,5,2][4,3,6][0,8,1]] - Already visited Node!
Node Chosen for Level 18 - [[5,2,4][7,3,0][1,8,6]]
Generated Nodes:
[[5,2,0][7,3,4][1,8,6]] - Already visited Node!
```

```
[[5,2,4][7,0,3][1,8,6]] - f(n) = 18 + 6 = 24
[[5,2,4][7,3,6][1,8,0]] - f(n) = 18 + 5 = 23
Node Chosen for Level 19 - [[0,2,4][5,8,6][7,3,1]]
Generated Nodes:
[[2,0,4][5,8,6][7,3,1]] - f(n) = 19 + 6 = 25
[[5,2,4][0,8,6][7,3,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][8,0,6][7,3,1]]
Generated Nodes:
[[5,0,4][8,2,6][7,3,1]] - f(n) = 19 + 6 = 25
[[5,2,4][8,6,0][7,3,1]] - f(n) = 19 + 6 = 25
[[5,2,4][0,8,6][7,3,1]] - Already visited Node!
[[5,2,4][8,3,6][7,0,1]] - f(n) = 19 + 5 = 24
Node Chosen for Level 18 - [[8,7,5][4,2,6][3,0,1]]
Generated Nodes:
[[8,7,5][4,0,6][3,2,1]] - f(n) = 18 + 6 = 24
[[8,7,5][4,2,6][3,1,0]] - Already visited Node!
[[8,7,5][4,2,6][0,3,1]] - f(n) = 18 + 6 = 24
Node Chosen for Level 18 - [[5,2,4][7,1,6][8,0,3]]
Generated Nodes:
[[5,2,4][7,0,6][8,1,3]] - f(n) = 18 + 6 = 24
[[5,2,4][7,1,6][8,3,0]] - Already visited Node!
[[5,2,4][7,1,6][0,8,3]] - f(n) = 18 + 5 = 23
Node Chosen for Level 18 - [[7,5,2][0,4,6][1,8,3]]
Generated Nodes:
[[0,5,2][7,4,6][1,8,3]] - f(n) = 18 + 6 = 24
[[7,5,2][4,0,6][1,8,3]] - f(n) = 18 + 5 = 23
[[7,5,2][1,4,6][0,8,3]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,4][0,5,6][1,8,3]]
Generated Nodes:
[[0,2,4][7,5,6][1,8,3]] - f(n) = 20 + 4 = 24
[[7,2,4][5,0,6][1,8,3]] - f(n) = 20 + 5 = 25
[[7,2,4][1,5,6][0,8,3]] - Already visited Node!
Node Chosen for Level 18 - [[7,2,8][3,5,0][1,6,4]]
```

```
Generated Nodes:
[[7,2,0][3,5,8][1,6,4]] - Already visited Node!
[[7,2,8][3,0,5][1,6,4]] - f(n) = 18 + 7 = 25
[[7,2,8][3,5,4][1,6,0]] - f(n) = 18 + 6 = 24
Node Chosen for Level 19 - [[0,7,2][3,5,6][4,8,1]]
Generated Nodes:
[[7,0,2][3,5,6][4,8,1]] - Already visited Node!
[[3,7,2][0,5,6][4,8,1]] - f(n) = 19 + 5 = 24
Node Chosen for Level 18 - [[7,0,2][3,5,6][1,4,8]]
Generated Nodes:
[[7,2,0][3,5,6][1,4,8]] - f(n) = 18 + 5 = 23
[[0,7,2][3,5,6][1,4,8]] - f(n) = 18 + 6 = 24
[[7,5,2][3,0,6][1,4,8]] - Already visited Node!
Node Chosen for Level 17 - [[7,4,5][3,0,2][1,8,6]]
Generated Nodes:
[[7,0,5][3,4,2][1,8,6]] - Already visited Node!
[[7,4,5][3,2,0][1,8,6]] - f(n) = 17 + 7 = 24
[[7,4,5][0,3,2][1,8,6]] - f(n) = 17 + 7 = 24
[[7,4,5][3,8,2][1,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[8,2,0][5,7,4][3,1,6]]
Generated Nodes:
[[8,0,2][5,7,4][3,1,6]] - Already visited Node!
[[8,2,4][5,7,0][3,1,6]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[5,2,0][7,8,1][3,6,4]]
Generated Nodes:
[[5,0,2][7,8,1][3,6,4]] - Already visited Node!
[[5,2,1][7,8,0][3,6,4]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[7,5,2][3,0,1][6,8,4]]
Generated Nodes:
[[7,0,2][3,5,1][6,8,4]] - f(n) = 17 + 6 = 23
[[7,5,2][3,1,0][6,8,4]] - f(n) = 17 + 7 = 24
[[7,5,2][0,3,1][6,8,4]] - f(n) = 17 + 7 = 24
```

```
[[7,5,2][3,8,1][6,0,4]] - Already visited Node!
Node Chosen for Level 17 - [[5,1,2][7,4,6][8,3,0]]
Generated Nodes:
[[5,1,2][7,4,0][8,3,6]] - Already visited Node!
[[5,1,2][7,4,6][8,0,3]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[5,1,2][7,3,4][0,8,6]]
Generated Nodes:
[[5,1,2][0,3,4][7,8,6]] - f(n) = 17 + 6 = 23
[[5,1,2][7,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 18 - [[5,2,4][0,1,8][7,3,6]]
Generated Nodes:
[[0,2,4][5,1,8][7,3,6]] - f(n) = 18 + 6 = 24
[[5,2,4][1,0,8][7,3,6]] - f(n) = 18 + 6 = 24
[[5,2,4][7,1,8][0,3,6]] - Already visited Node!
Node Chosen for Level 18 - [[5,8,2][0,4,6][7,3,1]]
Generated Nodes:
[[0,8,2][5,4,6][7,3,1]] - f(n) = 18 + 6 = 24
[[5,8,2][4,0,6][7,3,1]] - f(n) = 18 + 5 = 23
[[5,8,2][7,4,6][0,3,1]] - Already visited Node!
Node Chosen for Level 18 - [[7,0,2][1,5,6][8,4,3]]
Generated Nodes:
[[7,2,0][1,5,6][8,4,3]] - f(n) = 18 + 5 = 23
[[0,7,2][1,5,6][8,4,3]] - f(n) = 18 + 6 = 24
[[7,5,2][1,0,6][8,4,3]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][7,3,6][1,8,0]]
Generated Nodes:
[[5,2,4][7,3,0][1,8,6]] - Already visited Node!
[[5,2,4][7,3,6][1,0,8]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[5,2,4][7,1,6][0,8,3]]
Generated Nodes:
[[5,2,4][0,1,6][7,8,3]] - f(n) = 19 + 4 = 23
```

```
[[5,2,4][7,1,6][8,0,3]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][4,0,6][1,8,3]]
Generated Nodes:
[[7,0,2][4,5,6][1,8,3]] - f(n) = 19 + 4 = 23
[[7,5,2][4,6,0][1,8,3]] - f(n) = 19 + 6 = 25
[[7,5,2][0,4,6][1,8,3]] - Already visited Node!
[[7,5,2][4,8,6][1,0,3]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[7,2,0][3,5,6][1,4,8]]
Generated Nodes:
[[7,0,2][3,5,6][1,4,8]] - Already visited Node!
[[7,2,6][3,5,0][1,4,8]] - f(n) = 19 + 6 = 25
Node Chosen for Level 18 - [[7,0,2][3,5,1][6,8,4]]
Generated Nodes:
[[7,2,0][3,5,1][6,8,4]] - f(n) = 18 + 5 = 23
[[0,7,2][3,5,1][6,8,4]] - f(n) = 18 + 6 = 24
[[7,5,2][3,0,1][6,8,4]] - Already visited Node!
Node Chosen for Level 18 - [[5,1,2][0,3,4][7,8,6]]
Generated Nodes:
[[0,1,2][5,3,4][7,8,6]] - f(n) = 18 + 6 = 24
[[5,1,2][3,0,4][7,8,6]] - f(n) = 18 + 6 = 24
[[5,1,2][7,3,4][0,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][4,0,6][7,3,1]]
Generated Nodes:
[[5,0,2][4,8,6][7,3,1]] - f(n) = 19 + 5 = 24
[[5,8,2][4,6,0][7,3,1]] - f(n) = 19 + 6 = 25
[[5,8,2][0,4,6][7,3,1]] - Already visited Node!
[[5,8,2][4,3,6][7,0,1]] - f(n) = 19 + 5 = 24
Node Chosen for Level 19 - [[7,2,0][1,5,6][8,4,3]]
Generated Nodes:
[[7,0,2][1,5,6][8,4,3]] - Already visited Node!
[[7,2,6][1,5,0][8,4,3]] - f(n) = 19 + 6 = 25
Node Chosen for Level 20 - [[5,2,4][0,1,6][7,8,3]]
```

```
Generated Nodes:
```

```
[[0,2,4][5,1,6][7,8,3]] - f(n) = 20 + 4 = 24

[[5,2,4][1,0,6][7,8,3]] - f(n) = 20 + 4 = 24

[[5,2,4][7,1,6][0,8,3]] - Already visited Node!
```

Node Chosen for Level 20 - [[7,0,2][4,5,6][1,8,3]]

Generated Nodes:

```
[[7,2,0][4,5,6][1,8,3]] - f(n) = 20 + 3 = 23

[[0,7,2][4,5,6][1,8,3]] - f(n) = 20 + 4 = 24

[[7,5,2][4,0,6][1,8,3]] - Already visited Node!
```

Node Chosen for Level 19 - [[7,2,0][3,5,1][6,8,4]]

Generated Nodes:

```
[[7,0,2][3,5,1][6,8,4]] - Already visited Node! [[7,2,1][3,5,0][6,8,4]] - f(n) = 19 + 5 = 24
```

Node Chosen for Level 21 - [[7,2,0][4,5,6][1,8,3]]

Generated Nodes:

```
[[7,0,2][4,5,6][1,8,3]] - Already visited Node! [[7,2,6][4,5,0][1,8,3]] - f(n) = 21 + 4 = 25
```

Node Chosen for Level 18 - [[7,0,4][3,2,5][1,8,6]]

Generated Nodes:

```
[[7,4,0][3,2,5][1,8,6]] - f(n) = 18 + 7 = 25

[[0,7,4][3,2,5][1,8,6]] - f(n) = 18 + 7 = 25

[[7,2,4][3,0,5][1,8,6]] - Already visited Node!
```

Node Chosen for Level 18 - [[7,2,4][3,8,5][1,0,6]]

Generated Nodes :

```
[[7,2,4][3,0,5][1,8,6]] - Already visited Node! [[7,2,4][3,8,5][1,6,0]] - f(n) = 18 + 7 = 25 [[7,2,4][3,8,5][0,1,6]] - f(n) = 18 + 7 = 25
```

Node Chosen for Level 19 - [[7,2,4][3,0,6][1,5,8]]

Generated Nodes:

```
[[7,0,4][3,2,6][1,5,8]] - f(n) = 19 + 7 = 26

[[7,2,4][3,6,0][1,5,8]] - f(n) = 19 + 7 = 26

[[7,2,4][0,3,6][1,5,8]] - f(n) = 19 + 6 = 25

[[7,2,4][3,5,6][1,0,8]] - Already visited Node!
```

```
Node Chosen for Level 19 - [[7,2,6][4,0,5][8,3,1]]
Generated Nodes:
[[7,0,6][4,2,5][8,3,1]] - f(n) = 19 + 7 = 26
[[7,2,6][4,5,0][8,3,1]] - Already visited Node!
[[7,2,6][0,4,5][8,3,1]] - f(n) = 19 + 7 = 26
[[7,2,6][4,3,5][8,0,1]] - f(n) =
                                19 + 6 = 25
Node Chosen for Level 18 - [[3,7,2][1,5,4][8,0,6]]
Generated Nodes:
[[3,7,2][1,0,4][8,5,6]] - f(n) = 18 + 8 = 26
[[3,7,2][1,5,4][8,6,0]] - f(n) = 18 + 7 = 25
[[3,7,2][1,5,4][0,8,6]] - Already visited Node!
Node Chosen for Level 17 - [[8,7,2][5,0,1][3,6,4]]
Generated Nodes:
[[8,0,2][5,7,1][3,6,4]] - f(n) = 17 + 8 = 25
[[8,7,2][5,1,0][3,6,4]] - f(n) = 17 + 8 = 25
[[8,7,2][0,5,1][3,6,4]] - Already visited Node!
[[8,7,2][5,6,1][3,0,4]] - f(n) = 17 + 8 = 25
Node Chosen for Level 18 - [[7,5,2][4,3,0][8,1,6]]
Generated Nodes:
[[7,5,0][4,3,2][8,1,6]] - f(n) = 18 + 7 = 25
[[7,5,2][4,0,3][8,1,6]] - f(n) = 18 + 7 = 25
[[7,5,2][4,3,6][8,1,0]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,4][1,0,6][8,5,3]]
Generated Nodes:
[[7,0,4][1,2,6][8,5,3]] - f(n) = 19 + 7 = 26
[[7,2,4][1,6,0][8,5,3]] - f(n) = 19 + 7 = 26
[[7,2,4][0,1,6][8,5,3]] - f(n) = 19 + 6 = 25
[[7,2,4][1,5,6][8,0,3]] - Already visited Node!
Node Chosen for Level 18 - [[5,2,6][7,8,0][3,4,1]]
Generated Nodes:
[[5,2,0][7,8,6][3,4,1]] - Already visited Node!
[[5,2,6][7,0,8][3,4,1]] - f(n) = 18 + 7 = 25
[[5,2,6][7,8,1][3,4,0]] - f(n) = 18 + 7 = 25
```

```
Node Chosen for Level 18 - [[7,5,2][3,6,0][4,8,1]]
Generated Nodes:
[[7,5,0][3,6,2][4,8,1]] - f(n) = 18 + 7 = 25
[[7,5,2][3,0,6][4,8,1]] - Already visited Node!
[[7,5,2][3,6,1][4,8,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[5,2,6][7,4,0][8,3,1]]
Generated Nodes:
[[5,2,0][7,4,6][8,3,1]] - Already visited Node!
[[5,2,6][7,0,4][8,3,1]] - f(n) = 18 + 7 = 25
[[5,2,6][7,4,1][8,3,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 20 - [[7,2,6][3,5,0][4,8,1]]
Generated Nodes:
[[7,2,0][3,5,6][4,8,1]] - Already visited Node!
[[7,2,6][3,0,5][4,8,1]] - f(n) = 20 + 6 = 26
[[7,2,6][3,5,1][4,8,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 18 - [[7,2,6][0,8,5][3,4,1]]
Generated Nodes:
[[0,2,6][7,8,5][3,4,1]] - f(n) = 18 + 7 = 25
[[7,2,6][8,0,5][3,4,1]] - Already visited Node!
[[7,2,6][3,8,5][0,4,1]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,2,6][8,4,5][3,0,1]]
Generated Nodes:
[[7,2,6][8,0,5][3,4,1]] - Already visited Node!
[[7,2,6][8,4,5][3,1,0]] - f(n) = 18 + 7 = 25
[[7,2,6][8,4,5][0,3,1]] - f(n) =
                                  18 + 7 = 25
Node Chosen for Level 17 - [[5,4,0][7,2,8][3,1,6]]
Generated Nodes:
[[5,0,4][7,2,8][3,1,6]] - Already visited Node!
[[5,4,8][7,2,0][3,1,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[0,5,4][7,2,8][3,1,6]]
Generated Nodes:
[[5,0,4][7,2,8][3,1,6]] - Already visited Node!
```

```
[[7,5,4][0,2,8][3,1,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 18 - [[8,0,2][5,7,6][3,4,1]]
Generated Nodes:
[[8,2,0][5,7,6][3,4,1]] - f(n) = 18 + 6 = 24
[[0,8,2][5,7,6][3,4,1]] - f(n) = 18 + 7 = 25
[[8,7,2][5,0,6][3,4,1]] - Already visited Node!
Node Chosen for Level 18 - [[8,7,2][5,4,6][3,0,1]]
Generated Nodes:
[[8,7,2][5,0,6][3,4,1]] - Already visited Node!
[[8,7,2][5,4,6][3,1,0]] - f(n) = 18 + 7 = 25
[[8,7,2][5,4,6][0,3,1]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[3,0,2][5,7,4][1,8,6]]
Generated Nodes:
[[3,2,0][5,7,4][1,8,6]] - f(n) = 18 + 6 = 24
[[0,3,2][5,7,4][1,8,6]] - f(n) = 18 + 7 = 25
[[3,7,2][5,0,4][1,8,6]] - Already visited Node!
Node Chosen for Level 18 - [[3,7,2][5,4,0][1,8,6]]
Generated Nodes:
[[3,7,0][5,4,2][1,8,6]] - f(n) = 18 + 7 = 25
[[3,7,2][5,0,4][1,8,6]] - Already visited Node!
[[3,7,2][5,4,6][1,8,0]] - f(n) = 18 + 6 = 24
Node Chosen for Level 18 - [[7,2,1][0,8,5][3,6,4]]
Generated Nodes:
[[0,2,1][7,8,5][3,6,4]] - f(n) = 18 + 7 = 25
[[7,2,1][8,0,5][3,6,4]] - Already visited Node!
[[7,2,1][3,8,5][0,6,4]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,2,1][8,6,5][3,0,4]]
Generated Nodes:
[[7,2,1][8,0,5][3,6,4]] - Already visited Node!
[[7,2,1][8,6,5][3,4,0]] - f(n) = 18 + 7 = 25
[[7,2,1][8,6,5][0,3,4]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,2,4][0,1,5][8,3,6]]
```

```
Generated Nodes:
[[0,2,4][7,1,5][8,3,6]] - f(n) = 18 + 7 = 25
[[7,2,4][1,0,5][8,3,6]] - Already visited Node!
[[7,2,4][8,1,5][0,3,6]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,2,4][1,3,5][8,0,6]]
Generated Nodes:
[[7,2,4][1,0,5][8,3,6]] - Already visited Node!
[[7,2,4][1,3,5][8,6,0]] - f(n) = 18 + 7 = 25
[[7,2,4][1,3,5][0,8,6]] - f(n) = 18 + 6 = 24
Node Chosen for Level 19 - [[4,7,2][8,5,6][0,3,1]]
Generated Nodes:
[[4,7,2][0,5,6][8,3,1]] - Already visited Node!
[[4,7,2][8,5,6][3,0,1]] - f(n) = 19 + 6 = 25
Node Chosen for Level 18 - [[1,0,2][5,7,4][8,3,6]]
Generated Nodes:
[[1,2,0][5,7,4][8,3,6]] - f(n) = 18 + 6 = 24
[[0,1,2][5,7,4][8,3,6]] - f(n) = 18 + 8 = 26
[[1,7,2][5,0,4][8,3,6]] - Already visited Node!
Node Chosen for Level 18 - [[1,7,2][5,4,0][8,3,6]]
Generated Nodes:
[[1,7,0][5,4,2][8,3,6]] - f(n) = 18 + 7 = 25
[[1,7,2][5,0,4][8,3,6]] - Already visited Node!
[[1,7,2][5,4,6][8,3,0]] - f(n) = 18 + 6 = 24
Node Chosen for Level 18 - [[1,7,2][5,3,4][8,0,6]]
Generated Nodes:
[[1,7,2][5,0,4][8,3,6]] - Already visited Node! [[1,7,2][5,3,4][8,6,0]] - f(n) = 18 + 7 = 25
[[1,7,2][5,3,4][0,8,6]] - f(n) = 18 + 6 = 24
Node Chosen for Level 19 - [[0,5,2][7,3,6][4,8,1]]
Generated Nodes:
[[5,0,2][7,3,6][4,8,1]] - f(n) = 19 + 6 = 25
[[7,5,2][0,3,6][4,8,1]] - Already visited Node!
```

```
Node Chosen for Level 19 - [[5,4,0][7,2,6][3,8,1]]
Generated Nodes:
[[5,0,4][7,2,6][3,8,1]] - Already visited Node!
[[5,4,6][7,2,0][3,8,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,5,4][7,2,6][3,8,1]]
Generated Nodes:
[[5,0,4][7,2,6][3,8,1]] - Already visited Node!
[[7,5,4][0,2,6][3,8,1]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[5,2,0][7,6,4][3,8,1]]
Generated Nodes:
[[5,0,2][7,6,4][3,8,1]] - f(n) = 19 + 7 = 26
[[5,2,4][7,6,0][3,8,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][7,6,1][3,8,0]]
Generated Nodes:
[[5,2,4][7,6,0][3,8,1]] - Already visited Node!
[[5,2,4][7,6,1][3,0,8]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,2,4][7,3,5][1,8,6]]
Generated Nodes:
[[2,0,4][7,3,5][1,8,6]] - f(n) = 19 + 7 = 26
[[7,2,4][0,3,5][1,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,4][1,3,5][0,8,6]]
Generated Nodes:
[[7,2,4][0,3,5][1,8,6]] - Already visited Node!
[[7,2,4][1,3,5][8,0,6]] - Already visited Node!
Node Chosen for Level 18 - [[7,0,5][4,6,2][8,3,1]]
Generated Nodes:
[[7,5,0][4,6,2][8,3,1]] - Already visited Node!
[[0,7,5][4,6,2][8,3,1]] - f(n) = 18 + 7 = 25
[[7,6,5][4,0,2][8,3,1]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,5,2][4,6,1][8,0,3]]
```

```
Generated Nodes:
[[7,5,2][4,0,1][8,6,3]] - f(n) = 18 + 7 = 25
[[7,5,2][4,6,1][8,3,0]] - Already visited Node!
[[7,5,2][4,6,1][0,8,3]] - f(n) = 18 + 6 = 24
Node Chosen for Level 18 - [[7,5,2][0,3,6][1,4,8]]
Generated Nodes:
[[0,5,2][7,3,6][1,4,8]] - f(n) = 18 + 7 = 25
[[7,5,2][3,0,6][1,4,8]] - Already visited Node!
[[7,5,2][1,3,6][0,4,8]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,5,2][0,4,6][3,1,8]]
Generated Nodes:
[[0,5,2][7,4,6][3,1,8]] - f(n) = 18 + 7 = 25
[[7,5,2][4,0,6][3,1,8]] - f(n) = 18 + 6 = 24
[[7,5,2][3,4,6][0,1,8]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,4][0,5,6][3,1,8]]
Generated Nodes:
[[0,2,4][7,5,6][3,1,8]] - f(n) = 20 + 5 = 25
[[7,2,4][5,0,6][3,1,8]] - f(n) = 20 + 6 = 26
[[7,2,4][3,5,6][0,1,8]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,6][4,5,1][8,0,3]]
Generated Nodes:
[[7,2,6][4,0,1][8,5,3]] - f(n) = 20 + 6 = 26
[[7,2,6][4,5,1][8,3,0]] - Already visited Node!
[[7,2,6][4,5,1][0,8,3]] - f(n) = 20 + 4 = 24
Node Chosen for Level 17 - [[0,7,5][8,6,2][3,4,1]]
Generated Nodes:
[[7,0,5][8,6,2][3,4,1]] - Already visited Node!
[[8,7,5][0,6,2][3,4,1]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[7,6,5][8,0,2][3,4,1]]
Generated Nodes:
[[7,0,5][8,6,2][3,4,1]] - Already visited Node!
```

[[7,6,5][8,2,0][3,4,1]] - f(n) = 17 + 8 = 25[[7,6,5][0,8,2][3,4,1]] - f(n) = 17 + 8 = 25

```
[[7,6,5][8,4,2][3,0,1]] - f(n) = 17 + 8 = 25
Node Chosen for Level 19 - [[7,2,6][8,5,1][0,3,4]]
Generated Nodes:
[[7,2,6][0,5,1][8,3,4]] - f(n) = 19 + 6 = 25
[[7,2,6][8,5,1][3,0,4]] - Already visited Node!
Node Chosen for Level 17 - [[8,7,5][3,0,2][1,4,6]]
Generated Nodes:
[[8,0,5][3,7,2][1,4,6]] - f(n) = 17 + 8 = 25
[[8,7,5][3,2,0][1,4,6]] - f(n) = 17 + 8 = 25
[[8,7,5][0,3,2][1,4,6]] - f(n) = 17 + 8 = 25
[[8,7,5][3,4,2][1,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[8,7,5][3,4,2][1,6,0]]
Generated Nodes:
[[8,7,5][3,4,0][1,6,2]] - f(n) = 17 + 8 = 25
[[8,7,5][3,4,2][1,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[0,7,4][8,2,5][3,1,6]]
Generated Nodes:
[[7,0,4][8,2,5][3,1,6]] - Already visited Node!
[[8,7,4][0,2,5][3,1,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[4,5,0][7,8,2][3,1,6]]
Generated Nodes:
[[4,0,5][7,8,2][3,1,6]] - Already visited Node!
[[4,5,2][7,8,0][3,1,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[4,8,5][7,0,2][3,1,6]]
Generated Nodes:
[[4,0,5][7,8,2][3,1,6]] - Already visited Node!
[[4,8,5][7,2,0][3,1,6]] - f(n) = 17 + 8 = 25
[[4,8,5][0,7,2][3,1,6]] - f(n) = 17 + 8 = 25
[[4,8,5][7,1,2][3,0,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[7,4,5][3,8,2][1,6,0]]
Generated Nodes:
```

```
[[7,4,5][3,8,0][1,6,2]] - f(n) = 17 + 8 = 25
[[7,4,5][3,8,2][1,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[7,4,0][8,1,5][3,6,2]]
Generated Nodes:
[[7,0,4][8,1,5][3,6,2]] - f(n) = 17 + 8 = 25
[[7,4,5][8,1,0][3,6,2]] - Already visited Node!
Node Chosen for Level 17 - [[7,4,5][8,0,1][3,6,2]]
Generated Nodes:
[[7,0,5][8,4,1][3,6,2]] - f(n) = 17 + 8 = 25
[[7,4,5][8,1,0][3,6,2]] - Already visited Node!
[[7,4,5][0,8,1][3,6,2]] - f(n) = 17 + 8 = 25
[[7,4,5][8,6,1][3,0,2]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[0,4,5][7,1,2][8,3,6]]
Generated Nodes:
[[4,0,5][7,1,2][8,3,6]] - f(n) = 17 + 8 = 25
[[7,4,5][0,1,2][8,3,6]] - Already visited Node!
Node Chosen for Level 17 - [[7,4,5][1,0,2][8,3,6]]
Generated Nodes:
[[7,0,5][1,4,2][8,3,6]] - Already visited Node!
[[7,4,5][1,2,0][8,3,6]] - f(n) = 17 + 8 = 25
[[7,4,5][0,1,2][8,3,6]] - Already visited Node!
[[7,4,5][1,3,2][8,0,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[0,5,8][7,4,2][3,1,6]]
Generated Nodes:
[[5,0,8][7,4,2][3,1,6]] - Already visited Node!
[[7,5,8][0,4,2][3,1,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[5,4,8][7,0,2][3,1,6]]
Generated Nodes:
[[5,0,8][7,4,2][3,1,6]] - Already visited Node!
[[5,4,8][7,2,0][3,1,6]] - f(n) = 17 + 8 = 25
[[5,4,8][0,7,2][3,1,6]] - f(n) =
                                  17 + 8 = 25
                                  17 + 8 = 25
[[5,4,8][7,1,2][3,0,6]] - f(n) =
Node Chosen for Level 17 - [[8,7,2][5,0,4][3,1,6]]
```

```
Generated Nodes:
[[8,0,2][5,7,4][3,1,6]] - Already visited Node!
[[8,7,2][5,4,0][3,1,6]] - f(n) = 17 + 8 = 25
[[8,7,2][0,5,4][3,1,6]] - f(n) = 17 + 7 = 24
[[8,7,2][5,1,4][3,0,6]] - f(n) =
                                  17 + 8 = 25
Node Chosen for Level 17 - [[5,8,2][3,0,4][1,7,6]]
Generated Nodes:
[[5,0,2][3,8,4][1,7,6]] - f(n) = 17 + 8 = 25
[[5,8,2][3,4,0][1,7,6]] - f(n) = 17 + 8 = 25
[[5,8,2][0,3,4][1,7,6]] - f(n) = 17 + 8 = 25
[[5,8,2][3,7,4][1,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[5,8,2][3,7,4][1,6,0]]
Generated Nodes:
[[5,8,2][3,7,0][1,6,4]] - f(n) = 17 + 8 = 25
[[5,8,2][3,7,4][1,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[5,8,0][7,1,2][3,6,4]]
Generated Nodes:
[[5,0,8][7,1,2][3,6,4]] - f(n) = 17 + 8 = 25
[[5,8,2][7,1,0][3,6,4]] - Already visited Node!
Node Chosen for Level 17 - [[5,8,2][7,0,1][3,6,4]]
Generated Nodes:
[[5,0,2][7,8,1][3,6,4]] - Already visited Node!
[[5,8,2][7,1,0][3,6,4]] - Already visited Node!
[[5,8,2][0,7,1][3,6,4]] - f(n) = 17 + 8 = 25
[[5,8,2][7,6,1][3,0,4]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[0,7,5][3,8,2][1,6,4]]
Generated Nodes:
[[7,0,5][3,8,2][1,6,4]] - Already visited Node!
[[3,7,5][0,8,2][1,6,4]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[7,8,5][3,0,2][1,6,4]]
Generated Nodes:
```

[[7,0,5][3,8,2][1,6,4]] - Already visited Node!

```
[[7,8,5][3,2,0][1,6,4]] - f(n) = 17 + 8 = 25
[[7,8,5][0,3,2][1,6,4]] - f(n) = 17 + 8 = 25
[[7,8,5][3,6,2][1,0,4]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[0,5,2][7,3,8][1,6,4]]
Generated Nodes:
[[5,0,2][7,3,8][1,6,4]] - f(n) = 17 + 8 = 25
[[7,5,2][0,3,8][1,6,4]] - Already visited Node!
Node Chosen for Level 17 - [[7,5,2][1,3,8][0,6,4]]
Generated Nodes:
[[7,5,2][0,3,8][1,6,4]] - Already visited Node!
[[7,5,2][1,3,8][6,0,4]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[7,5,2][3,6,8][1,4,0]]
Generated Nodes:
[[7,5,2][3,6,0][1,4,8]] - f(n) = 17 + 8 = 25
[[7,5,2][3,6,8][1,0,4]] - Already visited Node!
Node Chosen for Level 17 - [[7,5,2][3,6,8][0,1,4]]
Generated Nodes:
[[7,5,2][0,6,8][3,1,4]] - f(n) = 17 + 8 = 25
[[7,5,2][3,6,8][1,0,4]] - Already visited Node!
Node Chosen for Level 17 - [[8,7,5][1,0,2][3,6,4]]
Generated Nodes:
[[8,0,5][1,7,2][3,6,4]] - f(n) = 17 + 8 = 25
[[8,7,5][1,2,0][3,6,4]] - f(n) = 17 + 8 = 25
[[8,7,5][0,1,2][3,6,4]] - Already visited Node!
[[8,7,5][1,6,2][3,0,4]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[8,7,5][3,1,2][0,6,4]]
Generated Nodes:
[[8,7,5][0,1,2][3,6,4]] - Already visited Node!
[[8,7,5][3,1,2][6,0,4]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[7,1,0][8,2,5][3,6,4]]
Generated Nodes:
```

```
[[7,0,1][8,2,5][3,6,4]] - f(n) = 17 + 8 = 25
[[7,1,5][8,2,0][3,6,4]] - Already visited Node!
Node Chosen for Level 17 - [[7,1,5][8,2,4][3,6,0]]
Generated Nodes:
[[7,1,5][8,2,0][3,6,4]] - Already visited Node!
[[7,1,5][8,2,4][3,0,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[0,1,5][7,8,2][3,6,4]]
Generated Nodes:
[[1,0,5][7,8,2][3,6,4]] - f(n) = 17 + 7 = 24
[[7,1,5][0,8,2][3,6,4]] - Already visited Node!
Node Chosen for Level 17 - [[7,1,5][3,8,2][0,6,4]]
Generated Nodes:
[[7,1,5][0,8,2][3,6,4]] - Already visited Node!
[[7,1,5][3,8,2][6,0,4]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[7,1,5][8,6,2][3,4,0]]
Generated Nodes:
[[7,1,5][8,6,0][3,4,2]] - f(n) = 17 + 8 = 25
[[7,1,5][8,6,2][3,0,4]] - Already visited Node!
Node Chosen for Level 17 - [[7,1,5][8,6,2][0,3,4]]
Generated Nodes:
[[7,1,5][0,6,2][8,3,4]] - f(n) = 17 + 8 = 25
[[7,1,5][8,6,2][3,0,4]] - Already visited Node!
Node Chosen for Level 17 - [[5,8,2][7,0,1][3,6,4]]
Generated Nodes:
[[5,0,2][7,8,1][3,6,4]] - Already visited Node!
[[5,8,2][7,1,0][3,6,4]] - Already visited Node!
[[5,8,2][0,7,1][3,6,4]] - f(n) = 17 + 8 = 25
[[5,8,2][7,6,1][3,0,4]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[7,5,2][3,8,1][6,4,0]]
Generated Nodes:
[[7,5,2][3,8,0][6,4,1]] - f(n) = 17 + 8 = 25
```

```
[[7,5,2][3,8,1][6,0,4]] - Already visited Node!
Node Chosen for Level 17 - [[0,5,2][7,6,1][8,3,4]]
Generated Nodes:
[[5,0,2][7,6,1][8,3,4]] - f(n) = 17 + 8 = 25
[[7,5,2][0,6,1][8,3,4]] - Already visited Node!
Node Chosen for Level 17 - [[7,5,2][6,0,1][8,3,4]]
Generated Nodes:
[[7,0,2][6,5,1][8,3,4]] - f(n) = 17 + 7 = 24
[[7,5,2][6,1,0][8,3,4]] - f(n) = 17 + 8 = 25
[[7,5,2][0,6,1][8,3,4]] - Already visited Node!
[[7,5,2][6,3,1][8,0,4]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[5,1,0][7,4,2][8,3,6]]
Generated Nodes:
[[5,0,1][7,4,2][8,3,6]] - f(n) = 17 + 8 = 25
[[5,1,2][7,4,0][8,3,6]] - Already visited Node!
Node Chosen for Level 17 - [[0,1,2][5,7,4][8,3,6]]
Generated Nodes:
[[1,0,2][5,7,4][8,3,6]] - Already visited Node!
[[5,1,2][0,7,4][8,3,6]] - Already visited Node!
Node Chosen for Level 17 - [[5,1,2][8,7,4][0,3,6]]
Generated Nodes:
[[5,1,2][0,7,4][8,3,6]] - Already visited Node!
[[5,1,2][8,7,4][3,0,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[5,1,2][7,3,4][8,6,0]]
Generated Nodes:
[[5,1,2][7,3,0][8,6,4]] - f(n) = 17 + 8 = 25
[[5,1,2][7,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[0,7,5][1,4,2][8,3,6]]
Generated Nodes:
[[7,0,5][1,4,2][8,3,6]] - Already visited Node!
[[1,7,5][0,4,2][8,3,6]] - f(n) = 17 + 7 = 24
```

```
Node Chosen for Level 17 - [[7,4,5][1,0,2][8,3,6]]
Generated Nodes:
[[7,0,5][1,4,2][8,3,6]] - Already visited Node!
[[7,4,5][1,2,0][8,3,6]] - f(n) = 17 + 8 = 25
[[7,4,5][0,1,2][8,3,6]] - Already visited Node!
[[7,4,5][1,3,2][8,0,6]] - f(n) = 17 + 8 = 25
Node Chosen for Level 17 - [[7,5,0][1,3,2][8,6,4]]
Generated Nodes:
[[7,0,5][1,3,2][8,6,4]] - f(n) = 17 + 8 = 25
[[7,5,2][1,3,0][8,6,4]] - Already visited Node!
Node Chosen for Level 17 - [[7,5,2][1,0,3][8,6,4]]
Generated Nodes:
[[7,0,2][1,5,3][8,6,4]] - f(n) = 17 + 7 = 24
[[7,5,2][1,3,0][8,6,4]] - Already visited Node!
[[7,5,2][0,1,3][8,6,4]] - f(n) = 17 + 8 = 25
[[7,5,2][1,6,3][8,0,4]] - f(n) =
                                  17 + 8 = 25
Node Chosen for Level 18 - [[5,8,2][0,7,6][3,4,1]]
Generated Nodes:
[[0,8,2][5,7,6][3,4,1]] - f(n) = 18 + 7 = 25
[[5,8,2][7,0,6][3,4,1]] - Already visited Node!
[[5,8,2][3,7,6][0,4,1]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[5,4,2][0,7,6][8,3,1]]
Generated Nodes:
[[0,4,2][5,7,6][8,3,1]] - f(n) = 18 + 7 = 25
[[5,4,2][7,0,6][8,3,1]] - Already visited Node!
[[5,4,2][8,7,6][0,3,1]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[5,4,2][7,3,6][8,0,1]]
Generated Nodes:
[[5,4,2][7,0,6][8,3,1]] - Already visited Node!
[[5,4,2][7,3,6][8,1,0]] - f(n) = 18 + 7 = 25
[[5,4,2][7,3,6][0,8,1]] - f(n) = 18 + 6 = 24
Node Chosen for Level 18 - [[5,2,4][3,7,8][1,0,6]]
```

```
Generated Nodes:
```

```
[[5,2,4][3,0,8][1,7,6]] - f(n) = 18 + 7 = 25

[[5,2,4][3,7,8][1,6,0]] - f(n) = 18 + 7 = 25

[[5,2,4][3,7,8][0,1,6]] - Already visited Node!
```

Node Chosen for Level 18 - [[5,2,4][7,1,0][3,6,8]]

Generated Nodes:

```
[[5,2,0][7,1,4][3,6,8]] - f(n) = 18 + 7 = 25

[[5,2,4][7,0,1][3,6,8]] - f(n) = 18 + 7 = 25

[[5,2,4][7,1,8][3,6,0]] - Already visited Node!
```

Node Chosen for Level 18 - [[3,7,5][0,4,2][1,8,6]]

Generated Nodes:

```
[[0,7,5][3,4,2][1,8,6]] - Already visited Node! [[3,7,5][4,0,2][1,8,6]] - f(n) = 18+6=24 [[3,7,5][1,4,2][0,8,6]] - f(n) = 18+7=25
```

Node Chosen for Level 18 - [[7,4,5][3,2,0][1,8,6]]

Generated Nodes:

```
[[7,4,0][3,2,5][1,8,6]] - f(n) = 18 + 7 = 25

[[7,4,5][3,0,2][1,8,6]] - Already visited Node!

[[7,4,5][3,2,6][1,8,0]] - f(n) = 18 + 6 = 24
```

Node Chosen for Level 18 - [[7,4,5][0,3,2][1,8,6]]

Generated Nodes:

[[0,4,5][7,3,2][1,8,6]] - f(n) = 18 + 7 = 25 [[7,4,5][3,0,2][1,8,6]] - Already visited Node! [[7,4,5][1,3,2][0,8,6]] - f(n) = 18 + 7 = 25

Node Chosen for Level 18 - [[5,3,2][7,4,0][1,8,6]]

Generated Nodes:

```
[[5,3,0][7,4,2][1,8,6]] - f(n) = 18 + 7 = 25

[[5,3,2][7,0,4][1,8,6]] - Already visited Node!

[[5,3,2][7,4,6][1,8,0]] - f(n) = 18 + 6 = 24
```

Node Chosen for Level 18 - [[5,3,2][0,7,4][1,8,6]]

```
[[0,3,2][5,7,4][1,8,6]] - f(n) = 18 + 7 = 25
[[5,3,2][7,0,4][1,8,6]] - Already visited Node!
```

```
[[5,3,2][1,7,4][0,8,6]] - f(n) = 18 + 7 = 25
Node Chosen for Level 19 - [[8,7,2][3,5,6][4,1,0]]
Generated Nodes:
[[8,7,2][3,5,0][4,1,6]] - f(n) = 19 + 7 = 26
[[8,7,2][3,5,6][4,0,1]] - Already visited Node!
Node Chosen for Level 18 - [[8,7,2][3,5,1][6,0,4]]
Generated Nodes:
[[8,7,2][3,0,1][6,5,4]] - f(n) = 18 + 8 = 26
[[8,7,2][3,5,1][6,4,0]] - f(n) = 18 + 7 = 25
[[8,7,2][3,5,1][0,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,1][8,5,4][0,3,6]]
Generated Nodes:
[[7,2,1][0,5,4][8,3,6]] - f(n) = 19 + 6 = 25
[[7,2,1][8,5,4][3,0,6]] - Already visited Node!
Node Chosen for Level 18 - [[8,5,2][4,7,0][3,1,6]]
Generated Nodes:
[[8,5,0][4,7,2][3,1,6]] - Already visited Node!
[[8,5,2][4,0,7][3,1,6]] - f(n) = 18 + 7 = 25
[[8,5,2][4,7,6][3,1,0]] - f(n) = 18 + 6 = 24
Node Chosen for Level 18 - [[8,0,7][4,2,5][3,1,6]]
Generated Nodes:
[[8,7,0][4,2,5][3,1,6]] - Already visited Node!
[[0,8,7][4,2,5][3,1,6]] - f(n) = 18 + 7 = 25
[[8,2,7][4,0,5][3,1,6]] - f(n) = 18 + 6 = 24
Node Chosen for Level 18 - [[8,7,5][4,1,0][3,6,2]]
Generated Nodes:
[[8,7,0][4,1,5][3,6,2]] - f(n) = 18 + 7 = 25
[[8,7,5][4,0,1][3,6,2]] - f(n) = 18 + 7 = 25
[[8,7,5][4,1,2][3,6,0]] - Already visited Node!
Node Chosen for Level 18 - [[7,0,5][8,4,6][3,2,1]]
Generated Nodes:
```

```
[[7,5,0][8,4,6][3,2,1]] - f(n) = 18 + 7 = 25
[[0,7,5][8,4,6][3,2,1]] - f(n) = 18 + 7 = 25
[[7,4,5][8,0,6][3,2,1]] - Already visited Node!
Node Chosen for Level 18 - [[7,4,5][0,8,6][3,2,1]]
Generated Nodes:
[[0,4,5][7,8,6][3,2,1]] - f(n) = 18 + 7 = 25
[[7,4,5][8,0,6][3,2,1]] - Already visited Node!
[[7,4,5][3,8,6][0,2,1]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,4,5][0,2,6][8,3,1]]
Generated Nodes:
[[0,4,5][7,2,6][8,3,1]] - f(n) = 18 + 7 = 25
[[7,4,5][2,0,6][8,3,1]] - f(n) = 18 + 7 = 25
[[7,4,5][8,2,6][0,3,1]] - Already visited Node!
Node Chosen for Level 18 - [[5,8,2][0,7,6][3,4,1]]
Generated Nodes:
[[0,8,2][5,7,6][3,4,1]] - f(n) = 18 + 7 = 25
[[5,8,2][7,0,6][3,4,1]] - Already visited Node!
[[5,8,2][3,7,6][0,4,1]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[5,2,4][0,7,1][8,3,6]]
Generated Nodes:
[[0,2,4][5,7,1][8,3,6]] - f(n) = 18 + 7 = 25
[[5,2,4][7,0,1][8,3,6]] - Already visited Node!
[[5,2,4][8,7,1][0,3,6]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[5,2,4][7,3,1][8,0,6]]
Generated Nodes:
[[5,2,4][7,0,1][8,3,6]] - Already visited Node!
[[5,2,4][7,3,1][8,6,0]] - f(n) = 18 + 7 = 25
[[5,2,4][7,3,1][0,8,6]] - f(n) = 18 + 6 = 24
Node Chosen for Level 18 - [[7,5,2][0,1,6][8,4,3]]
Generated Nodes:
[[0,5,2][7,1,6][8,4,3]] - f(n) = 18 + 7 = 25
[[7,5,2][1,0,6][8,4,3]] - Already visited Node!
[[7,5,2][8,1,6][0,4,3]] - f(n) = 18 + 7 = 25
```

```
Node Chosen for Level 19 - [[1,7,2][8,5,4][3,6,0]]
Generated Nodes:
[[1,7,2][8,5,0][3,6,4]] - f(n) = 19 + 6 = 25
[[1,7,2][8,5,4][3,0,6]] - Already visited Node!
Node Chosen for Level 18 - [[8,0,2][5,1,4][7,3,6]]
Generated Nodes:
[[8,2,0][5,1,4][7,3,6]] - f(n) = 18 + 6 = 24
[[0,8,2][5,1,4][7,3,6]] - Already visited Node!
[[8,1,2][5,0,4][7,3,6]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[5,0,2][1,8,4][7,3,6]]
Generated Nodes:
[[5,2,0][1,8,4][7,3,6]] - f(n) = 18 + 6 = 24
[[0,5,2][1,8,4][7,3,6]] - f(n) = 18 + 7 = 25
[[5,8,2][1,0,4][7,3,6]] - Already visited Node!
Node Chosen for Level 18 - [[5,8,2][1,4,0][7,3,6]]
Generated Nodes:
[[5,8,0][1,4,2][7,3,6]] - f(n) = 18 + 7 = 25
[[5,8,2][1,0,4][7,3,6]] - Already visited Node!
[[5,8,2][1,4,6][7,3,0]] - f(n) = 18 + 6 = 24
Node Chosen for Level 18 - [[5,8,2][1,3,4][7,0,6]]
Generated Nodes:
[[5,8,2][1,0,4][7,3,6]] - Already visited Node!
[[5,8,2][1,3,4][7,6,0]] - f(n) = 18 + 7 = 25
[[5,8,2][1,3,4][0,7,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[3,7,2][0,5,8][1,6,4]]
Generated Nodes:
[[0,7,2][3,5,8][1,6,4]] - Already visited Node!
[[3,7,2][5,0,8][1,6,4]] - f(n) = 18 + 8 = 26
[[3,7,2][1,5,8][0,6,4]] - f(n) = 18 + 7 = 25
Node Chosen for Level 19 - [[0,5,2][7,3,6][4,8,1]]
Generated Nodes:
[[5,0,2][7,3,6][4,8,1]] - f(n) = 19 + 6 = 25
```

```
[[7,5,2][0,3,6][4,8,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][7,0,3][1,8,6]]
Generated Nodes:
[[5,0,4][7,2,3][1,8,6]] - f(n) = 19 + 7 = 26
[[5,2,4][7,3,0][1,8,6]] - Already visited Node!
[[5,2,4][0,7,3][1,8,6]] - f(n) = 19 + 6 = 25
[[5,2,4][7,8,3][1,0,6]] - f(n) =
                                  19 + 7 = 26
Node Chosen for Level 20 - [[5,2,4][8,3,6][7,0,1]]
Generated Nodes:
[[5,2,4][8,0,6][7,3,1]] - Already visited Node!
[[5,2,4][8,3,6][7,1,0]] - f(n) = 20 + 5 = 25
[[5,2,4][8,3,6][0,7,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 19 - [[8,7,5][4,0,6][3,2,1]]
Generated Nodes:
[[8,0,5][4,7,6][3,2,1]] - f(n) = 19 + 6 = 25
[[8,7,5][4,6,0][3,2,1]] - f(n) = 19 + 7 = 26
[[8,7,5][0,4,6][3,2,1]] - f(n) = 19 + 7 = 26
[[8,7,5][4,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,5][4,2,6][0,3,1]]
Generated Nodes:
[[8,7,5][0,2,6][4,3,1]] - f(n) = 19 + 7 = 26
[[8,7,5][4,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][7,0,6][8,1,3]]
Generated Nodes:
[[5,0,4][7,2,6][8,1,3]] - f(n) = 19 + 7 = 26
[[5,2,4][7,6,0][8,1,3]] - f(n) = 19 + 7 = 26
[[5,2,4][0,7,6][8,1,3]] - f(n) = 19 + 6 = 25
[[5,2,4][7,1,6][8,0,3]] - Already visited Node!
Node Chosen for Level 19 - [[0,5,2][7,4,6][1,8,3]]
Generated Nodes:
[[5,0,2][7,4,6][1,8,3]] - f(n) = 19 + 6 = 25
[[7,5,2][0,4,6][1,8,3]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,4][7,5,6][1,8,3]]
```

```
Generated Nodes:
```

$$[[2,0,4][7,5,6][1,8,3]] - f(n) = 21 + 5 = 26$$

 $[[7,2,4][0,5,6][1,8,3]] - Already visited Node!$

Node Chosen for Level 19 - [[7,2,8][3,5,4][1,6,0]]

Generated Nodes:

[[7,2,8][3,5,0][1,6,4]] - Already visited Node! [[7,2,8][3,5,4][1,0,6]] - f(n) = 19 + 6 = 25

Node Chosen for Level 20 - [[3,7,2][0,5,6][4,8,1]]

Generated Nodes:

[[0,7,2][3,5,6][4,8,1]] - Already visited Node! [[3,7,2][5,0,6][4,8,1]] - f(n) = 20 + 6 = 26[[3,7,2][4,5,6][0,8,1]] - f(n) = 20 + 4 = 24

Node Chosen for Level 19 - [[0,7,2][3,5,6][1,4,8]]

Generated Nodes:

[[7,0,2][3,5,6][1,4,8]] - Already visited Node! [[3,7,2][0,5,6][1,4,8]] - f(n) = 19 + 6 = 25

Node Chosen for Level 18 - [[7,4,5][3,2,0][1,8,6]]

Generated Nodes:

[[7,4,0][3,2,5][1,8,6]] - f(n) = 18 + 7 = 25[[7,4,5][3,0,2][1,8,6]] - Already visited Node! [[7,4,5][3,2,6][1,8,0]] - f(n) = 18 + 6 = 24

Node Chosen for Level 18 - [[7,4,5][0,3,2][1,8,6]]

Generated Nodes:

[[0,4,5][7,3,2][1,8,6]] - f(n) = 18 + 7 = 25[[7,4,5][3,0,2][1,8,6]] - Already visited Node! [[7,4,5][1,3,2][0,8,6]] - f(n) = 18 + 7 = 25

Node Chosen for Level 18 - [[8,2,4][5,7,0][3,1,6]]

Generated Nodes:

[[8,2,0][5,7,4][3,1,6]] - Already visited Node!

[[8,2,4][5,0,7][3,1,6]] - f(n) = 18 + 7 = 25

[[8,2,4][5,7,6][3,1,0]] - f(n) = 18 + 6 = 24

```
Node Chosen for Level 18 - [[5,2,1][7,8,0][3,6,4]]
Generated Nodes:
[[5,2,0][7,8,1][3,6,4]] - Already visited Node!
[[5,2,1][7,0,8][3,6,4]] - f(n) = 18 + 7 = 25
[[5,2,1][7,8,4][3,6,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,5,2][3,1,0][6,8,4]]
Generated Nodes:
[[7,5,0][3,1,2][6,8,4]] - f(n) = 18 + 7 = 25
[[7,5,2][3,0,1][6,8,4]] - Already visited Node!
[[7,5,2][3,1,4][6,8,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,5,2][0,3,1][6,8,4]]
Generated Nodes:
[[0,5,2][7,3,1][6,8,4]] - f(n) = 18 + 7 = 25
[[7,5,2][3,0,1][6,8,4]] - Already visited Node!
[[7,5,2][6,3,1][0,8,4]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[5,1,2][7,4,6][8,0,3]]
Generated Nodes:
[[5,1,2][7,0,6][8,4,3]] - f(n) = 18 + 7 = 25
[[5,1,2][7,4,6][8,3,0]] - Already visited Node!
[[5,1,2][7,4,6][0,8,3]] - f(n) = 18 + 6 = 24
Node Chosen for Level 19 - [[0,2,4][5,1,8][7,3,6]]
Generated Nodes:
[[2,0,4][5,1,8][7,3,6]] - f(n) = 19 + 7 = 26
[[5,2,4][0,1,8][7,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][1,0,8][7,3,6]]
Generated Nodes:
[[5,0,4][1,2,8][7,3,6]] - f(n) = 19 + 7 = 26
[[5,2,4][1,8,0][7,3,6]] - f(n) = 19 + 6 = 25
[[5,2,4][0,1,8][7,3,6]] - Already visited Node!
[[5,2,4][1,3,8][7,0,6]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[0,8,2][5,4,6][7,3,1]]
```

```
[[8,0,2][5,4,6][7,3,1]] - f(n) = 19 + 6 = 25
[[5,8,2][0,4,6][7,3,1]] - Already visited Node!
Node Chosen for Level 19 - [[0,7,2][1,5,6][8,4,3]]
Generated Nodes:
[[7,0,2][1,5,6][8,4,3]] - Already visited Node!
[[1,7,2][0,5,6][8,4,3]] - f(n) = 19 + 5 = 24
Node Chosen for Level 19 - [[0,7,2][3,5,1][6,8,4]]
Generated Nodes:
[[7,0,2][3,5,1][6,8,4]] - Already visited Node!
[[3,7,2][0,5,1][6,8,4]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[0,1,2][5,3,4][7,8,6]]
Generated Nodes:
[[1,0,2][5,3,4][7,8,6]] - f(n) = 19 + 5 = 24
[[5,1,2][0,3,4][7,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,1,2][3,0,4][7,8,6]]
Generated Nodes:
[[5,0,2][3,1,4][7,8,6]] - f(n) = 19 + 6 = 25
[[5,1,2][3,4,0][7,8,6]] - f(n) = 19 + 6 = 25

[[5,1,2][0,3,4][7,8,6]] - Already visited Node!
[[5,1,2][3,8,4][7,0,6]] - f(n) = 19 + 7 = 26
Node Chosen for Level 20 - [[5,0,2][4,8,6][7,3,1]]
Generated Nodes:
[[5,2,0][4,8,6][7,3,1]] - f(n) = 20 + 4 = 24
[[0,5,2][4,8,6][7,3,1]] - f(n) = 20 + 5 = 25
[[5,8,2][4,0,6][7,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[5,8,2][4,3,6][7,0,1]]
Generated Nodes:
[[5,8,2][4,0,6][7,3,1]] - Already visited Node!
[[5,8,2][4,3,6][7,1,0]] - f(n) = 20 + 5 = 25
[[5,8,2][4,3,6][0,7,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 21 - [[0,2,4][5,1,6][7,8,3]]
Generated Nodes:
```

```
[[2,0,4][5,1,6][7,8,3]] - f(n) = 21 + 5 = 26
[[5,2,4][0,1,6][7,8,3]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][1,0,6][7,8,3]]
Generated Nodes:
[[5,0,4][1,2,6][7,8,3]] - f(n) = 21 + 5 = 26
[[5,2,4][1,6,0][7,8,3]] - f(n) = 21 + 5 = 26
[[5,2,4][0,1,6][7,8,3]] - Already visited Node!
[[5,2,4][1,8,6][7,0,3]] - f(n) = 21 + 5 = 26
Node Chosen for Level 21 - [[0,7,2][4,5,6][1,8,3]]
Generated Nodes:
[[7,0,2][4,5,6][1,8,3]] - Already visited Node!
[[4,7,2][0,5,6][1,8,3]] - f(n) = 21 + 5 = 26
Node Chosen for Level 20 - [[7,2,1][3,5,0][6,8,4]]
Generated Nodes:
[[7,2,0][3,5,1][6,8,4]] - Already visited Node!
[[7,2,1][3,0,5][6,8,4]] - f(n) = 20 + 6 = 26
[[7,2,1][3,5,4][6,8,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 19 - [[8,2,0][5,7,6][3,4,1]]
Generated Nodes:
[[8,0,2][5,7,6][3,4,1]] - Already visited Node!
[[8,2,6][5,7,0][3,4,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[3,2,0][5,7,4][1,8,6]]
Generated Nodes:
[[3,0,2][5,7,4][1,8,6]] - Already visited Node!
[[3,2,4][5,7,0][1,8,6]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[3,7,2][5,4,6][1,8,0]]
Generated Nodes:
[[3,7,2][5,4,0][1,8,6]] - Already visited Node!
[[3,7,2][5,4,6][1,0,8]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,2,4][1,3,5][0,8,6]]
Generated Nodes:
```

```
[[7,2,4][0,3,5][1,8,6]] - Already visited Node!
[[7,2,4][1,3,5][8,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[1,2,0][5,7,4][8,3,6]]
Generated Nodes:
[[1,0,2][5,7,4][8,3,6]] - Already visited Node!
[[1,2,4][5,7,0][8,3,6]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[1,7,2][5,4,6][8,3,0]]
Generated Nodes:
[[1,7,2][5,4,0][8,3,6]] - Already visited Node!
[[1,7,2][5,4,6][8,0,3]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[1,7,2][5,3,4][0,8,6]]
Generated Nodes:
[[1,7,2][0,3,4][5,8,6]] - f(n) = 19 + 6 = 25
[[1,7,2][5,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][4,6,1][0,8,3]]
Generated Nodes:
[[7,5,2][0,6,1][4,8,3]] - f(n) = 19 + 7 = 26
[[7,5,2][4,6,1][8,0,3]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][4,0,6][3,1,8]]
Generated Nodes:
[[7,0,2][4,5,6][3,1,8]] - f(n) = 19 + 5 = 24
[[7,5,2][4,6,0][3,1,8]] - f(n) = 19 + 7 = 26
[[7,5,2][0,4,6][3,1,8]] - Already visited Node!
[[7,5,2][4,1,6][3,0,8]] - f(n) = 19 + 6 = 25
Node Chosen for Level 21 - [[7,2,6][4,5,1][0,8,3]]
Generated Nodes:
[[7,2,6][0,5,1][4,8,3]] - f(n) = 21 + 5 = 26
[[7,2,6][4,5,1][8,0,3]] - Already visited Node!
Node Chosen for Level 18 - [[8,7,2][0,5,4][3,1,6]]
Generated Nodes:
```

```
[[0,7,2][8,5,4][3,1,6]] - f(n) = 18 + 7 = 25
[[8,7,2][5,0,4][3,1,6]] - Already visited Node!
[[8,7,2][3,5,4][0,1,6]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[1,0,5][7,8,2][3,6,4]]
Generated Nodes:
[[1,5,0][7,8,2][3,6,4]] - f(n) = 18 + 7 = 25
[[0,1,5][7,8,2][3,6,4]] - Already visited Node!
[[1,8,5][7,0,2][3,6,4]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,0,2][6,5,1][8,3,4]]
Generated Nodes:
[[7,2,0][6,5,1][8,3,4]] - f(n) = 18 + 6 = 24
[[0,7,2][6,5,1][8,3,4]] - f(n) = 18 + 7 = 25
[[7,5,2][6,0,1][8,3,4]] - Already visited Node!
Node Chosen for Level 18 - [[1,7,5][0,4,2][8,3,6]]
Generated Nodes:
[[0,7,5][1,4,2][8,3,6]] - Already visited Node!
[[1,7,5][4,0,2][8,3,6]] - f(n) = 18 + 6 = 24
[[1,7,5][8,4,2][0,3,6]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,0,2][1,5,3][8,6,4]]
Generated Nodes:
[[7,2,0][1,5,3][8,6,4]] - f(n) = 18 + 6 = 24
[[0,7,2][1,5,3][8,6,4]] - f(n) = 18 + 7 = 25
[[7,5,2][1,0,3][8,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,4,2][7,3,6][0,8,1]]
Generated Nodes:
[[5,4,2][0,3,6][7,8,1]] - f(n) = 19 + 5 = 24
[[5,4,2][7,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 19 - [[3,7,5][4,0,2][1,8,6]]
Generated Nodes:
[[3,0,5][4,7,2][1,8,6]] - f(n) = 19 + 6 = 25
[[3,7,5][4,2,0][1,8,6]] - f(n) = 19 + 6 = 25
[[3,7,5][0,4,2][1,8,6]] - Already visited Node!
[[3,7,5][4,8,2][1,0,6]] - f(n) = 19 + 7 = 26
```

```
Node Chosen for Level 19 - [[7,4,5][3,2,6][1,8,0]]
Generated Nodes:
[[7,4,5][3,2,0][1,8,6]] - Already visited Node!
[[7,4,5][3,2,6][1,0,8]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[5,3,2][7,4,6][1,8,0]]
Generated Nodes:
[[5,3,2][7,4,0][1,8,6]] - Already visited Node!
[[5,3,2][7,4,6][1,0,8]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[8,5,2][4,7,6][3,1,0]]
Generated Nodes:
[[8,5,2][4,7,0][3,1,6]] - Already visited Node!
[[8,5,2][4,7,6][3,0,1]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[8,2,7][4,0,5][3,1,6]]
Generated Nodes:
[[8,0,7][4,2,5][3,1,6]] - Already visited Node!
[[8,2,7][4,5,0][3,1,6]] - f(n) = 19 + 5 = 24
[[8,2,7][0,4,5][3,1,6]] - f(n) = 19 + 7 = 26
[[8,2,7][4,1,5][3,0,6]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[5,2,4][7,3,1][0,8,6]]
Generated Nodes:
[[5,2,4][0,3,1][7,8,6]] - f(n) = 19 + 5 = 24
[[5,2,4][7,3,1][8,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[8,2,0][5,1,4][7,3,6]]
Generated Nodes:
[[8,0,2][5,1,4][7,3,6]] - Already visited Node!
[[8,2,4][5,1,0][7,3,6]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[5,2,0][1,8,4][7,3,6]]
Generated Nodes:
[[5,0,2][1,8,4][7,3,6]] - Already visited Node!
[[5,2,4][1,8,0][7,3,6]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[5,8,2][1,4,6][7,3,0]]
```

```
Generated Nodes:
[[5,8,2][1,4,0][7,3,6]] - Already visited Node!
[[5,8,2][1,4,6][7,0,3]] - f(n) = 19 + 6 = 25
Node Chosen for Level 21 - [[3,7,2][4,5,6][0,8,1]]
Generated Nodes:
[[3,7,2][0,5,6][4,8,1]] - Already visited Node!
[[3,7,2][4,5,6][8,0,1]] - f(n) = 21 + 5 = 26
Node Chosen for Level 19 - [[7,4,5][3,2,6][1,8,0]]
Generated Nodes:
[[7,4,5][3,2,0][1,8,6]] - Already visited Node!
[[7,4,5][3,2,6][1,0,8]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[8,2,4][5,7,6][3,1,0]]
Generated Nodes:
[[8,2,4][5,7,0][3,1,6]] - Already visited Node!
[[8,2,4][5,7,6][3,0,1]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[5,1,2][7,4,6][0,8,3]]
Generated Nodes:
[[5,1,2][0,4,6][7,8,3]] - f(n) = 19 + 5 = 24
[[5,1,2][7,4,6][8,0,3]] - Already visited Node!
Node Chosen for Level 20 - [[1,7,2][0,5,6][8,4,3]]
Generated Nodes:
[[0,7,2][1,5,6][8,4,3]] - Already visited Node!
[[1,7,2][5,0,6][8,4,3]] - f(n) = 20 + 6 = 26
[[1,7,2][8,5,6][0,4,3]] - f(n) = 20 + 5 = 25
Node Chosen for Level 20 - [[1,0,2][5,3,4][7,8,6]]
Generated Nodes:
[[1,2,0][5,3,4][7,8,6]] - f(n) = 20 + 4 = 24
[[0,1,2][5,3,4][7,8,6]] - Already visited Node!
[[1,3,2][5,0,4][7,8,6]] - f(n) = 20 + 5 = 25
Node Chosen for Level 21 - [[5,2,0][4,8,6][7,3,1]]
```

```
Generated Nodes:
[[5,0,2][4,8,6][7,3,1]] - Already visited Node!
[[5,2,6][4,8,0][7,3,1]] - f(n) = 21 + 5 = 26
Node Chosen for Level 20 - [[7,0,2][4,5,6][3,1,8]]
Generated Nodes:
[[7,2,0][4,5,6][3,1,8]] - f(n) = 20 + 4 = 24
[[0,7,2][4,5,6][3,1,8]] - f(n) = 20 + 5 = 25
[[7,5,2][4,0,6][3,1,8]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,0][6,5,1][8,3,4]]
Generated Nodes:
[[7,0,2][6,5,1][8,3,4]] - Already visited Node!
[[7,2,1][6,5,0][8,3,4]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[1,7,5][4,0,2][8,3,6]]
Generated Nodes:
[[1,0,5][4,7,2][8,3,6]] - f(n) = 19 + 6 = 25
[[1,7,5][4,2,0][8,3,6]] - f(n) = 19 + 6 = 25
[[1,7,5][0,4,2][8,3,6]] - Already visited Node!
[[1,7,5][4,3,2][8,0,6]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[7,2,0][1,5,3][8,6,4]]
Generated Nodes:
[[7,0,2][1,5,3][8,6,4]] - Already visited Node!
[[7,2,3][1,5,0][8,6,4]] - f(n) = 19 + 5 = 24
Node Chosen for Level 20 - [[5,4,2][0,3,6][7,8,1]]
Generated Nodes:
[[0,4,2][5,3,6][7,8,1]] - f(n) = 20 + 5 = 25
[[5,4,2][3,0,6][7,8,1]] - f(n) = 20 + 5 = 25
[[5,4,2][7,3,6][0,8,1]] - Already visited Node!
Node Chosen for Level 20 - [[8,2,7][4,5,0][3,1,6]]
Generated Nodes:
[[8,2,0][4,5,7][3,1,6]] - f(n) = 20 + 5 = 25
[[8,2,7][4,0,5][3,1,6]] - Already visited Node!
[[8,2,7][4,5,6][3,1,0]] - f(n) = 20 + 4 = 24
```

```
Node Chosen for Level 20 - [[5,2,4][0,3,1][7,8,6]]
Generated Nodes:
[[0,2,4][5,3,1][7,8,6]] - f(n) = 20 + 5 = 25
[[5,2,4][3,0,1][7,8,6]] - f(n) = 20 + 5 = 25
[[5,2,4][7,3,1][0,8,6]] - Already visited Node!
Node Chosen for Level 20 - [[5,1,2][0,4,6][7,8,3]]
Generated Nodes:
[[0,1,2][5,4,6][7,8,3]] - f(n) = 20 + 5 = 25
[[5,1,2][4,0,6][7,8,3]] - f(n) = 20 + 4 = 24
[[5,1,2][7,4,6][0,8,3]] - Already visited Node!
Node Chosen for Level 21 - [[1,2,0][5,3,4][7,8,6]]
Generated Nodes:
[[1,0,2][5,3,4][7,8,6]] - Already visited Node!
[[1,2,4][5,3,0][7,8,6]] - f(n) = 21 + 4 = 25
Node Chosen for Level 21 - [[7,2,0][4,5,6][3,1,8]]
Generated Nodes:
[[7,0,2][4,5,6][3,1,8]] - Already visited Node!
[[7,2,6][4,5,0][3,1,8]] - f(n) = 21 + 5 = 26
Node Chosen for Level 20 - [[7,2,3][1,5,0][8,6,4]]
Generated Nodes:
[[7,2,0][1,5,3][8,6,4]] - Already visited Node!
[[7,2,3][1,0,5][8,6,4]] - f(n) = 20 + 6 = 26
[[7,2,3][1,5,4][8,6,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 21 - [[8,2,7][4,5,6][3,1,0]]
Generated Nodes:
[[8,2,7][4,5,0][3,1,6]] - Already visited Node!
[[8,2,7][4,5,6][3,0,1]] - f(n) = 21 + 4 = 25
Node Chosen for Level 21 - [[5,1,2][4,0,6][7,8,3]]
Generated Nodes:
[[5,0,2][4,1,6][7,8,3]] - f(n) = 21 + 4 = 25
[[5,1,2][4,6,0][7,8,3]] - f(n) = 21 + 5 = 26
[[5,1,2][0,4,6][7,8,3]] - Already visited Node!
```

```
[[5,1,2][4,8,6][7,0,3]] - f(n) = 21 + 5 = 26
Node Chosen for Level 18 - [[7,0,6][8,2,5][3,4,1]]
Generated Nodes:
[[7,6,0][8,2,5][3,4,1]] - f(n) = 18 + 8 = 26
[[0,7,6][8,2,5][3,4,1]] - f(n) = 18 + 8 = 26
[[7,2,6][8,0,5][3,4,1]] - Already visited Node!
Node Chosen for Level 18 - [[8,7,2][5,6,0][3,4,1]]
Generated Nodes:
[[8,7,0][5,6,2][3,4,1]] - f(n) = 18 + 8 = 26
[[8,7,2][5,0,6][3,4,1]] - Already visited Node!
[[8,7,2][5,6,1][3,4,0]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[3,7,2][5,8,4][1,0,6]]
Generated Nodes:
[[3,7,2][5,0,4][1,8,6]] - Already visited Node!
[[3,7,2][5,8,4][1,6,0]] - f(n) = 18 + 8 = 26
[[3,7,2][5,8,4][0,1,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,0,1][8,2,5][3,6,4]]
Generated Nodes:
[[7,1,0][8,2,5][3,6,4]] - Already visited Node!
[[0,7,1][8,2,5][3,6,4]] - f(n) = 18 + 8 = 26
[[7,2,1][8,0,5][3,6,4]] - Already visited Node!
Node Chosen for Level 18 - [[7,0,4][1,2,5][8,3,6]]
Generated Nodes:
[[7,4,0][1,2,5][8,3,6]] - f(n) = 18 + 8 = 26
[[0,7,4][1,2,5][8,3,6]] - f(n) = 18 + 8 = 26
[[7,2,4][1,0,5][8,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[4,7,2][5,0,6][8,3,1]]
Generated Nodes:
[[4,0,2][5,7,6][8,3,1]] - f(n) = 19 + 7 = 26
[[4,7,2][5,6,0][8,3,1]] - f(n) = 19 + 8 = 27
[[4,7,2][0,5,6][8,3,1]] - Already visited Node!
[[4,7,2][5,3,6][8,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 18 - [[7,5,2][3,6,0][1,4,8]]
```

```
Generated Nodes:
[[7,5,0][3,6,2][1,4,8]] - f(n) = 18 + 8 = 26
[[7,5,2][3,0,6][1,4,8]] - Already visited Node!
[[7,5,2][3,6,8][1,4,0]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,6][8,0,1][3,5,4]]
Generated Nodes:
[[7,0,6][8,2,1][3,5,4]] - f(n) = 19 + 8 = 27
[[7,2,6][8,1,0][3,5,4]] - f(n) = 19 + 7 = 26
[[7,2,6][0,8,1][3,5,4]] - f(n) = 19 + 7 = 26
[[7,2,6][8,5,1][3,0,4]] - Already visited Node!
Node Chosen for Level 18 - [[5,8,2][7,6,0][3,4,1]]
Generated Nodes:
[[5,8,0][7,6,2][3,4,1]] - f(n) = 18 + 8 = 26
[[5,8,2][7,0,6][3,4,1]] - Already visited Node!
[[5,8,2][7,6,1][3,4,0]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,5,2][3,8,0][4,1,6]]
Generated Nodes:
[[7,5,0][3,8,2][4,1,6]] - f(n) = 18 + 8 = 26
[[7,5,2][3,0,8][4,1,6]] - f(n) = 18 + 8 = 26
[[7,5,2][3,8,6][4,1,0]] - Already visited Node!
Node Chosen for Level 18 - [[5,4,2][7,6,0][8,3,1]]
Generated Nodes:
[[5,4,0][7,6,2][8,3,1]] - f(n) = 18 + 8 = 26
[[5,4,2][7,0,6][8,3,1]] - Already visited Node!
[[5,4,2][7,6,1][8,3,0]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[2,0,4][5,7,8][3,1,6]]
Generated Nodes:
[[2,4,0][5,7,8][3,1,6]] - f(n) = 18 + 8 = 26
[[0,2,4][5,7,8][3,1,6]] - Already visited Node!
[[2,7,4][5,0,8][3,1,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[5,3,2][7,8,4][1,0,6]]
```

```
[[5,3,2][7,0,4][1,8,6]] - Already visited Node!
[[5,3,2][7,8,4][1,6,0]] - f(n) = 18 + 8 = 26
[[5,3,2][7,8,4][0,1,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 19 - [[8,7,2][3,0,6][4,5,1]]
Generated Nodes:
[[8,0,2][3,7,6][4,5,1]] - f(n) =
                                 19 + 7 = 26
[[8,7,2][3,6,0][4,5,1]] - f(n) = 19 + 8 = 27
[[8,7,2][0,3,6][4,5,1]] - f(n) = 19 + 7 = 26
[[8,7,2][3,5,6][4,0,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,1][8,0,4][3,5,6]]
Generated Nodes:
[[7,0,1][8,2,4][3,5,6]] - f(n) = 19 + 8 = 27
[[7,2,1][8,4,0][3,5,6]] - f(n) = 19 + 7 = 26
[[7,2,1][0,8,4][3,5,6]] - f(n) = 19 + 7 = 26
[[7,2,1][8,5,4][3,0,6]] - Already visited Node!
Node Chosen for Level 18 - [[4,8,5][0,7,2][3,1,6]]
Generated Nodes:
[[0,8,5][4,7,2][3,1,6]] - Already visited Node!
[[4,8,5][7,0,2][3,1,6]] - Already visited Node!
[[4,8,5][3,7,2][0,1,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[8,7,5][0,1,2][4,3,6]]
Generated Nodes:
[[0,7,5][8,1,2][4,3,6]] - f(n) = 18 + 8 = 26
[[8,7,5][1,0,2][4,3,6]] - f(n) = 18 + 8 = 26
[[8,7,5][4,1,2][0,3,6]] - Already visited Node!
Node Chosen for Level 18 - [[7,4,5][8,6,0][3,2,1]]
Generated Nodes:
[[7,4,0][8,6,5][3,2,1]] - f(n) = 18 + 8 = 26
[[7,4,5][8,0,6][3,2,1]] - Already visited Node!
[[7,4,5][8,6,1][3,2,0]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[5,8,2][7,6,0][3,4,1]]
Generated Nodes:
[[5,8,0][7,6,2][3,4,1]] - f(n) = 18 + 8 = 26
[[5,8,2][7,0,6][3,4,1]] - Already visited Node!
```

```
[[5,8,2][7,6,1][3,4,0]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[5,0,4][7,2,1][8,3,6]]
Generated Nodes:
[[5,4,0][7,2,1][8,3,6]] - f(n) = 18 + 8 = 26
[[0,5,4][7,2,1][8,3,6]] - f(n) = 18 + 8 = 26
[[5,2,4][7,0,1][8,3,6]] - Already visited Node!
Node Chosen for Level 18 - [[7,5,2][1,6,0][8,4,3]]
Generated Nodes:
[[7,5,0][1,6,2][8,4,3]] - f(n) = 18 + 8 = 26
[[7,5,2][1,0,6][8,4,3]] - Already visited Node!
[[7,5,2][1,6,3][8,4,0]] - f(n) = 18 + 8 = 26
Node Chosen for Level 19 - [[1,7,2][8,0,4][3,5,6]]
Generated Nodes:
[[1,0,2][8,7,4][3,5,6]] - f(n) = 19 + 7 = 26
[[1,7,2][8,4,0][3,5,6]] - f(n) = 19 + 7 = 26
[[1,7,2][0,8,4][3,5,6]] - f(n) = 19 + 7 = 26
[[1,7,2][8,5,4][3,0,6]] - Already visited Node!
Node Chosen for Level 20 - [[2,0,4][5,7,6][3,8,1]]
Generated Nodes:
[[2,4,0][5,7,6][3,8,1]] - f(n) = 20 + 6 = 26
[[0,2,4][5,7,6][3,8,1]] - Already visited Node!
[[2,7,4][5,0,6][3,8,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[5,2,4][3,7,6][8,0,1]]
Generated Nodes:
[[5,2,4][3,0,6][8,7,1]] - f(n) = 20 + 6 = 26
[[5,2,4][3,7,6][8,1,0]] - f(n) = 20 + 6 = 26
[[5,2,4][3,7,6][0,8,1]] - Already visited Node!
Node Chosen for Level 20 - [[2,0,4][5,8,6][7,3,1]]
Generated Nodes:
[[2,4,0][5,8,6][7,3,1]] - f(n) = 20 + 6 = 26
[[0,2,4][5,8,6][7,3,1]] - Already visited Node!
[[2,8,4][5,0,6][7,3,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[5,0,4][8,2,6][7,3,1]]
```

```
Generated Nodes:
```

```
[[5,4,0][8,2,6][7,3,1]] - f(n) = 20 + 6 = 26
[[0,5,4][8,2,6][7,3,1]] - f(n) = 20 + 6 = 26
[[5,2,4][8,0,6][7,3,1]] - Already visited Node!
```

Node Chosen for Level 20 - [[5,2,4][8,6,0][7,3,1]]

Generated Nodes:

[[5,2,0][8,6,4][7,3,1]] - f(n) = 20 + 6 = 26[[5,2,4][8,0,6][7,3,1]] - Already visited Node!

[[5,2,4][8,6,1][7,3,0]] - f(n) = 20 + 6 = 26

Node Chosen for Level 21 - [[7,2,4][5,0,6][1,8,3]]

Generated Nodes:

```
[[7,0,4][5,2,6][1,8,3]] - f(n) = 21 + 6 = 27
[[7,2,4][5,6,0][1,8,3]] - f(n) = 21 + 6 = 27
[[7,2,4][0,5,6][1,8,3]] - Already visited Node!
[[7,2,4][5,8,6][1,0,3]] - f(n) = 21 + 6 = 27
```

Node Chosen for Level 19 - [[7,2,8][3,0,5][1,6,4]]

Generated Nodes:

[[7,0,8][3,2,5][1,6,4]] - f(n) = 19 + 8 = 27[[7,2,8][3,5,0][1,6,4]] - Already visited Node! [[7,2,8][0,3,5][1,6,4]] - f(n) = 19 + 7 = 26 [[7,2,8][3,6,5][1,0,4]] - f(n) = 19 + 7 = 26

Node Chosen for Level 20 - [[5,2,4][7,3,6][1,0,8]]

Generated Nodes:

[[5,2,4][7,0,6][1,3,8]] - f(n) = 20 + 6 = 26[[5,2,4][7,3,6][1,8,0]] - Already visited Node! [[5,2,4][7,3,6][0,1,8]] - f(n) = 20 + 6 = 26

Node Chosen for Level 20 - [[7,5,2][4,6,0][1,8,3]]

Generated Nodes:

```
[[7,5,0][4,6,2][1,8,3]] - f(n) = 20 + 6 = 26
[[7,5,2][4,0,6][1,8,3]] - Already visited Node!
[[7,5,2][4,6,3][1,8,0]] - f(n) = 20 + 6 = 26
```

Node Chosen for Level 20 - [[7,5,2][4,8,6][1,0,3]]

```
[[7,5,2][4,0,6][1,8,3]] - Already visited Node!
[[7,5,2][4,8,6][1,3,0]] - f(n) = 20 + 6 = 26
[[7,5,2][4,8,6][0,1,3]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,2,6][3,5,0][1,4,8]]
Generated Nodes:
[[7,2,0][3,5,6][1,4,8]] - Already visited Node!
[[7,2,6][3,0,5][1,4,8]] - f(n) = 20 + 7 = 27
[[7,2,6][3,5,8][1,4,0]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[5,8,2][4,6,0][7,3,1]]
Generated Nodes:
[[5,8,0][4,6,2][7,3,1]] - f(n) = 20 + 6 = 26
[[5,8,2][4,0,6][7,3,1]] - Already visited Node!
[[5,8,2][4,6,1][7,3,0]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,2,6][1,5,0][8,4,3]]
Generated Nodes:
[[7,2,0][1,5,6][8,4,3]] - Already visited Node!
[[7,2,6][1,0,5][8,4,3]] - f(n) = 20 + 7 = 27
[[7,2,6][1,5,3][8,4,0]] - f(n) = 20 + 6 = 26
Node Chosen for Level 22 - [[7,2,6][4,5,0][1,8,3]]
Generated Nodes:
[[7,2,0][4,5,6][1,8,3]] - Already visited Node!
[[7,2,6][4,0,5][1,8,3]] - f(n) = 22 + 5 = 27
[[7,2,6][4,5,3][1,8,0]] - f(n) = 22 + 4 = 26
Node Chosen for Level 19 - [[7,4,0][3,2,5][1,8,6]]
Generated Nodes:
[[7,0,4][3,2,5][1,8,6]] - Already visited Node!
[[7,4,5][3,2,0][1,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,7,4][3,2,5][1,8,6]]
Generated Nodes:
[[7,0,4][3,2,5][1,8,6]] - Already visited Node!
[[3,7,4][0,2,5][1,8,6]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,2,4][3,8,5][1,6,0]]
```

```
Generated Nodes:
```

```
[[7,2,4][3,8,0][1,6,5]] - f(n) = 19 + 7 = 26
[[7,2,4][3,8,5][1,0,6]] - Already visited Node!
```

Node Chosen for Level 19 - [[7,2,4][3,8,5][0,1,6]]

Generated Nodes:

```
[[7,2,4][0,8,5][3,1,6]] - f(n) = 19 + 7 = 26
[[7,2,4][3,8,5][1,0,6]] - Already visited Node!
```

Node Chosen for Level 20 - [[7,2,4][0,3,6][1,5,8]]

Generated Nodes:

```
[[0,2,4][7,3,6][1,5,8]] - f(n) = 20 + 6 = 26

[[7,2,4][3,0,6][1,5,8]] - Already visited Node!

[[7,2,4][1,3,6][0,5,8]] - f(n) = 20 + 6 = 26
```

Node Chosen for Level 20 - [[7,2,6][4,3,5][8,0,1]]

Generated Nodes:

```
[[7,2,6][4,0,5][8,3,1]] - Already visited Node! [[7,2,6][4,3,5][8,1,0]] - f(n) = 20 + 6 = 26 [[7,2,6][4,3,5][0,8,1]] - f(n) = 20 + 5 = 25
```

Node Chosen for Level 19 - [[3,7,2][1,5,4][8,6,0]]

Generated Nodes:

```
[[3,7,2][1,5,0][8,6,4]] - f(n) = 19 + 7 = 26
[[3,7,2][1,5,4][8,0,6]] - Already visited Node!
```

Node Chosen for Level 18 - [[8,0,2][5,7,1][3,6,4]]

Generated Nodes:

```
[[8,2,0][5,7,1][3,6,4]] - f(n) = 18 + 7 = 25

[[0,8,2][5,7,1][3,6,4]] - f(n) = 18 + 8 = 26

[[8,7,2][5,0,1][3,6,4]] - Already visited Node!
```

Node Chosen for Level 18 - [[8,7,2][5,1,0][3,6,4]]

Generated Nodes:

```
[[8,7,0][5,1,2][3,6,4]] - f(n) = 18 + 8 = 26

[[8,7,2][5,0,1][3,6,4]] - Already visited Node!

[[8,7,2][5,1,4][3,6,0]] - f(n) = 18 + 8 = 26
```

```
Node Chosen for Level 18 - [[8,7,2][5,6,1][3,0,4]]
Generated Nodes:
[[8,7,2][5,0,1][3,6,4]] - Already visited Node!
[[8,7,2][5,6,1][3,4,0]] - f(n) = 18 + 8 = 26
[[8,7,2][5,6,1][0,3,4]] - f(n) = 18 + 8 = 26
Node Chosen for Level 19 - [[7,5,0][4,3,2][8,1,6]]
Generated Nodes:
[[7,0,5][4,3,2][8,1,6]] - f(n) = 19 + 7 = 26
[[7,5,2][4,3,0][8,1,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][4,0,3][8,1,6]]
Generated Nodes:
[[7,0,2][4,5,3][8,1,6]] - f(n) = 19 + 6 = 25
[[7,5,2][4,3,0][8,1,6]] - Already visited Node!
[[7,5,2][0,4,3][8,1,6]] - f(n) = 19 + 8 = 27
[[7,5,2][4,1,3][8,0,6]] - f(n) =
                                   19 + 7 = 26
Node Chosen for Level 20 - [[7,2,4][0,1,6][8,5,3]]
Generated Nodes:
[[0,2,4][7,1,6][8,5,3]] - f(n) = 20 + 6 = 26
[[7,2,4][1,0,6][8,5,3]] - Already visited Node!
[[7,2,4][8,1,6][0,5,3]] - f(n) = 20 + 6 = 26
Node Chosen for Level 19 - [[5,2,6][7,0,8][3,4,1]]
Generated Nodes:
[[5,0,6][7,2,8][3,4,1]] - f(n) = 19 + 8 = 27
[[5,2,6][7,8,0][3,4,1]] - Already visited Node! [[5,2,6][0,7,8][3,4,1]] - f(n) = 19 + 7 = 26
[[5,2,6][7,4,8][3,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[5,2,6][7,8,1][3,4,0]]
Generated Nodes:
[[5,2,6][7,8,0][3,4,1]] - Already visited Node!
[[5,2,6][7,8,1][3,0,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,5,0][3,6,2][4,8,1]]
Generated Nodes:
```

```
[[7,0,5][3,6,2][4,8,1]] - f(n) = 19 + 7 = 26
[[7,5,2][3,6,0][4,8,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][3,6,1][4,8,0]]
Generated Nodes:
[[7,5,2][3,6,0][4,8,1]] - Already visited Node!
[[7,5,2][3,6,1][4,0,8]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[5,2,6][7,0,4][8,3,1]]
Generated Nodes:
[[5,0,6][7,2,4][8,3,1]] - f(n) = 19 + 8 = 27
[[5,2,6][7,4,0][8,3,1]] - Already visited Node!
[[5,2,6][0,7,4][8,3,1]] - f(n) = 19 + 7 = 26
[[5,2,6][7,3,4][8,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[5,2,6][7,4,1][8,3,0]]
Generated Nodes:
[[5,2,6][7,4,0][8,3,1]] - Already visited Node!
[[5,2,6][7,4,1][8,0,3]] - f(n) = 19 + 7 = 26
Node Chosen for Level 21 - [[7,2,6][3,5,1][4,8,0]]
Generated Nodes:
[[7,2,6][3,5,0][4,8,1]] - Already visited Node!
[[7,2,6][3,5,1][4,0,8]] - f(n) = 21 + 6 = 27
Node Chosen for Level 19 - [[0,2,6][7,8,5][3,4,1]]
Generated Nodes:
[[2,0,6][7,8,5][3,4,1]] - f(n) = 19 + 8 = 27
[[7,2,6][0,8,5][3,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,6][3,8,5][0,4,1]]
Generated Nodes:
[[7,2,6][0,8,5][3,4,1]] - Already visited Node!
[[7,2,6][3,8,5][4,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,2,6][8,4,5][3,1,0]]
Generated Nodes:
[[7,2,6][8,4,0][3,1,5]] - f(n) = 19 + 7 = 26
```

```
[[7,2,6][8,4,5][3,0,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,6][8,4,5][0,3,1]]
Generated Nodes:
[[7,2,6][0,4,5][8,3,1]] - f(n) = 19 + 7 = 26
[[7,2,6][8,4,5][3,0,1]] - Already visited Node!
Node Chosen for Level 18 - [[5,4,8][7,2,0][3,1,6]]
Generated Nodes:
[[5,4,0][7,2,8][3,1,6]] - Already visited Node!
[[5,4,8][7,0,2][3,1,6]] - Already visited Node!
[[5,4,8][7,2,6][3,1,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,5,4][0,2,8][3,1,6]]
Generated Nodes:
[[0,5,4][7,2,8][3,1,6]] - Already visited Node!
[[7,5,4][2,0,8][3,1,6]] - f(n) = 18 + 8 = 26
[[7,5,4][3,2,8][0,1,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 19 - [[0,8,2][5,7,6][3,4,1]]
Generated Nodes:
[[8,0,2][5,7,6][3,4,1]] - Already visited Node!
[[5,8,2][0,7,6][3,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,2][5,4,6][3,1,0]]
Generated Nodes:
[[8,7,2][5,4,0][3,1,6]] - f(n) = 19 + 8 = 27
[[8,7,2][5,4,6][3,0,1]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,2][5,4,6][0,3,1]]
Generated Nodes:
[[8,7,2][0,4,6][5,3,1]] - f(n) = 19 + 7 = 26
[[8,7,2][5,4,6][3,0,1]] - Already visited Node!
Node Chosen for Level 19 - [[0,3,2][5,7,4][1,8,6]]
Generated Nodes:
[[3,0,2][5,7,4][1,8,6]] - Already visited Node!
[[5,3,2][0,7,4][1,8,6]] - Already visited Node!
```

```
Node Chosen for Level 19 - [[3,7,0][5,4,2][1,8,6]]
Generated Nodes:
[[3,0,7][5,4,2][1,8,6]] - f(n) = 19 + 7 = 26
[[3,7,2][5,4,0][1,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,2,1][7,8,5][3,6,4]]
Generated Nodes:
[[2,0,1][7,8,5][3,6,4]] - f(n) = 19 + 8 = 27
[[7,2,1][0,8,5][3,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,1][3,8,5][0,6,4]]
Generated Nodes:
[[7,2,1][0,8,5][3,6,4]] - Already visited Node!
[[7,2,1][3,8,5][6,0,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,2,1][8,6,5][3,4,0]]
Generated Nodes:
[[7,2,1][8,6,0][3,4,5]] - f(n) = 19 + 7 = 26
[[7,2,1][8,6,5][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,1][8,6,5][0,3,4]]
Generated Nodes:
[[7,2,1][0,6,5][8,3,4]] - f(n) = 19 + 7 = 26
[[7,2,1][8,6,5][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[0,2,4][7,1,5][8,3,6]]
Generated Nodes:
[[2,0,4][7,1,5][8,3,6]] - f(n) = 19 + 8 = 27
[[7,2,4][0,1,5][8,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,2,4][8,1,5][0,3,6]]
Generated Nodes:
[[7,2,4][0,1,5][8,3,6]] - Already visited Node!
[[7,2,4][8,1,5][3,0,6]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,2,4][1,3,5][8,6,0]]
```

```
Generated Nodes:
[[7,2,4][1,3,0][8,6,5]] - f(n) = 19 + 7 = 26
[[7,2,4][1,3,5][8,0,6]] - Already visited Node!
Node Chosen for Level 20 - [[4,7,2][8,5,6][3,0,1]]
Generated Nodes:
[[4,7,2][8,0,6][3,5,1]] - f(n) = 20 + 7 = 27
[[4,7,2][8,5,6][3,1,0]] - f(n) = 20 + 6 = 26
[[4,7,2][8,5,6][0,3,1]] - Already visited Node!
Node Chosen for Level 19 - [[1,7,0][5,4,2][8,3,6]]
Generated Nodes:
[[1,0,7][5,4,2][8,3,6]] - f(n) = 19 + 7 = 26
[[1,7,2][5,4,0][8,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[1,7,2][5,3,4][8,6,0]]
Generated Nodes:
[[1,7,2][5,3,0][8,6,4]] - f(n) = 19 + 7 = 26
[[1,7,2][5,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 20 - [[5,0,2][7,3,6][4,8,1]]
Generated Nodes:
[[5,2,0][7,3,6][4,8,1]] - f(n) = 20 + 5 = 25
[[0,5,2][7,3,6][4,8,1]] - Already visited Node!
[[5,3,2][7,0,6][4,8,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,5,4][0,2,6][3,8,1]]
Generated Nodes:
[[0,5,4][7,2,6][3,8,1]] - Already visited Node!
[[7,5,4][2,0,6][3,8,1]] - f(n) = 20 + 6 = 26
[[7,5,4][3,2,6][0,8,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 19 - [[0,7,5][4,6,2][8,3,1]]
Generated Nodes:
[[7,0,5][4,6,2][8,3,1]] - Already visited Node!
[[4,7,5][0,6,2][8,3,1]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,6,5][4,0,2][8,3,1]]
```

```
Generated Nodes:
[[7,0,5][4,6,2][8,3,1]] - Already visited Node!
[[7,6,5][4,2,0][8,3,1]] - f(n) = 19 + 7 = 26
[[7,6,5][0,4,2][8,3,1]] - f(n) = 19 + 8 = 27
[[7,6,5][4,3,2][8,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,5,2][4,0,1][8,6,3]]
Generated Nodes:
[[7,0,2][4,5,1][8,6,3]] - f(n) = 19 + 6 = 25
[[7,5,2][4,1,0][8,6,3]] - f(n) = 19 + 7 = 26
[[7,5,2][0,4,1][8,6,3]] - f(n) = 19 + 8 = 27
[[7,5,2][4,6,1][8,0,3]] - Already visited Node!
Node Chosen for Level 19 - [[0,5,2][7,3,6][1,4,8]]
Generated Nodes:
[[5,0,2][7,3,6][1,4,8]] - f(n) = 19 + 7 = 26
[[7,5,2][0,3,6][1,4,8]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][1,3,6][0,4,8]]
Generated Nodes:
[[7,5,2][0,3,6][1,4,8]] - Already visited Node!
[[7,5,2][1,3,6][4,0,8]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,5,2][7,4,6][3,1,8]]
Generated Nodes:
[[5,0,2][7,4,6][3,1,8]] - f(n) = 19 + 7 = 26
[[7,5,2][0,4,6][3,1,8]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,4][7,5,6][3,1,8]]
Generated Nodes:
[[2,0,4][7,5,6][3,1,8]] - f(n) = 21 + 6 = 27
[[7,2,4][0,5,6][3,1,8]] - Already visited Node!
Node Chosen for Level 18 - [[8,7,5][0,6,2][3,4,1]]
Generated Nodes:
[[0,7,5][8,6,2][3,4,1]] - Already visited Node!
[[8,7,5][6,0,2][3,4,1]] - f(n) = 18 + 8 = 26
[[8,7,5][3,6,2][0,4,1]] - f(n) = 18 + 8 = 26
```

```
Node Chosen for Level 18 - [[7,6,5][8,2,0][3,4,1]]
Generated Nodes:
[[7,6,0][8,2,5][3,4,1]] - f(n) = 18 + 8 = 26
[[7,6,5][8,0,2][3,4,1]] - Already visited Node!
[[7,6,5][8,2,1][3,4,0]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,6,5][0,8,2][3,4,1]]
Generated Nodes:
[[0,6,5][7,8,2][3,4,1]] - f(n) = 18 + 8 = 26
[[7,6,5][8,0,2][3,4,1]] - Already visited Node!
[[7,6,5][3,8,2][0,4,1]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,6,5][8,4,2][3,0,1]]
Generated Nodes:
[[7,6,5][8,0,2][3,4,1]] - Already visited Node!
[[7,6,5][8,4,2][3,1,0]] - f(n) = 18 + 8 = 26
[[7,6,5][8,4,2][0,3,1]] - f(n) = 18 + 8 = 26
Node Chosen for Level 20 - [[7,2,6][0,5,1][8,3,4]]
Generated Nodes:
[[0,2,6][7,5,1][8,3,4]] - f(n) = 20 + 6 = 26
[[7,2,6][5,0,1][8,3,4]] - f(n) = 20 + 7 = 27
[[7,2,6][8,5,1][0,3,4]] - Already visited Node!
Node Chosen for Level 18 - [[8,0,5][3,7,2][1,4,6]]
Generated Nodes:
[[8,5,0][3,7,2][1,4,6]] - f(n) = 18 + 8 = 26
[[0,8,5][3,7,2][1,4,6]] - f(n) = 18 + 8 = 26
[[8,7,5][3,0,2][1,4,6]] - Already visited Node!
Node Chosen for Level 18 - [[8,7,5][3,2,0][1,4,6]]
Generated Nodes:
[[8,7,0][3,2,5][1,4,6]] - f(n) = 18 + 8 = 26
[[8,7,5][3,0,2][1,4,6]] - Already visited Node!
[[8,7,5][3,2,6][1,4,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[8,7,5][0,3,2][1,4,6]]
```

```
[[0,7,5][8,3,2][1,4,6]] - f(n) = 18 + 8 = 26
[[8,7,5][3,0,2][1,4,6]] - Already visited Node!
[[8,7,5][1,3,2][0,4,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[8,7,5][3,4,0][1,6,2]]
Generated Nodes:
[[8,7,0][3,4,5][1,6,2]] - f(n) = 18 + 8 = 26
[[8,7,5][3,0,4][1,6,2]] - f(n) = 18 + 8 = 26
[[8,7,5][3,4,2][1,6,0]] - Already visited Node!
Node Chosen for Level 18 - [[8,7,4][0,2,5][3,1,6]]
Generated Nodes:
[[0,7,4][8,2,5][3,1,6]] - Already visited Node!
[[8,7,4][2,0,5][3,1,6]] - f(n) = 18 + 8 = 26
[[8,7,4][3,2,5][0,1,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[4,5,2][7,8,0][3,1,6]]
Generated Nodes:
[[4,5,0][7,8,2][3,1,6]] - Already visited Node!
[[4,5,2][7,0,8][3,1,6]] - f(n) = 18 + 8 = 26
[[4,5,2][7,8,6][3,1,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[4,8,5][7,2,0][3,1,6]]
Generated Nodes:
[[4,8,0][7,2,5][3,1,6]] - f(n) = 18 + 8 = 26
[[4,8,5][7,0,2][3,1,6]] - Already visited Node!
[[4,8,5][7,2,6][3,1,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[4,8,5][0,7,2][3,1,6]]
Generated Nodes:
[[0,8,5][4,7,2][3,1,6]] - Already visited Node!
[[4,8,5][7,0,2][3,1,6]] - Already visited Node!
[[4,8,5][3,7,2][0,1,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[4,8,5][7,1,2][3,0,6]]
Generated Nodes:
[[4,8,5][7,0,2][3,1,6]] - Already visited Node!
[[4,8,5][7,1,2][3,6,0]] - f(n) = 18 + 8 = 26
[[4,8,5][7,1,2][0,3,6]] - f(n) = 18 + 8 = 26
```

```
Node Chosen for Level 18 - [[7,4,5][3,8,0][1,6,2]]
Generated Nodes:
[[7,4,0][3,8,5][1,6,2]] - f(n) = 18 + 8 = 26
[[7,4,5][3,0,8][1,6,2]] - f(n) = 18 + 8 = 26
[[7,4,5][3,8,2][1,6,0]] - Already visited Node!
Node Chosen for Level 18 - [[7,0,4][8,1,5][3,6,2]]
Generated Nodes:
[[7,4,0][8,1,5][3,6,2]] - Already visited Node!
[[0,7,4][8,1,5][3,6,2]] - f(n) = 18 + 8 = 26
[[7,1,4][8,0,5][3,6,2]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,0,5][8,4,1][3,6,2]]
Generated Nodes:
[[7,5,0][8,4,1][3,6,2]] - f(n) = 18 + 8 = 26
[[0,7,5][8,4,1][3,6,2]] - f(n) = 18 + 8 = 26
[[7,4,5][8,0,1][3,6,2]] - Already visited Node!
Node Chosen for Level 18 - [[7,4,5][0,8,1][3,6,2]]
Generated Nodes:
[[0,4,5][7,8,1][3,6,2]] - f(n) = 18 + 8 = 26
[[7,4,5][8,0,1][3,6,2]] - Already visited Node!
[[7,4,5][3,8,1][0,6,2]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,4,5][8,6,1][3,0,2]]
Generated Nodes:
[[7,4,5][8,0,1][3,6,2]] - Already visited Node!
[[7,4,5][8,6,1][3,2,0]] - f(n) = 18 + 8 = 26
[[7,4,5][8,6,1][0,3,2]] - f(n) =
                                  18 + 8 = 26
Node Chosen for Level 18 - [[4,0,5][7,1,2][8,3,6]]
Generated Nodes:
[[4,5,0][7,1,2][8,3,6]] - f(n) = 18 + 8 = 26
[[0,4,5][7,1,2][8,3,6]] - Already visited Node!
[[4,1,5][7,0,2][8,3,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,4,5][1,2,0][8,3,6]]
Generated Nodes:
```

```
[[7,4,0][1,2,5][8,3,6]] - f(n) = 18 + 8 = 26
[[7,4,5][1,0,2][8,3,6]] - Already visited Node!
[[7,4,5][1,2,6][8,3,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,4,5][1,3,2][8,0,6]]
Generated Nodes:
[[7,4,5][1,0,2][8,3,6]] - Already visited Node!
[[7,4,5][1,3,2][8,6,0]] - f(n) = 18 + 8 = 26
[[7,4,5][1,3,2][0,8,6]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,5,8][0,4,2][3,1,6]]
Generated Nodes:
[[0,5,8][7,4,2][3,1,6]] - Already visited Node!
[[7,5,8][4,0,2][3,1,6]] - f(n) = 18 + 7 = 25
[[7,5,8][3,4,2][0,1,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[5,4,8][7,2,0][3,1,6]]
Generated Nodes:
[[5,4,0][7,2,8][3,1,6]] - Already visited Node!
[[5,4,8][7,0,2][3,1,6]] - Already visited Node!
[[5,4,8][7,2,6][3,1,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[5,4,8][0,7,2][3,1,6]]
Generated Nodes:
[[0,4,8][5,7,2][3,1,6]] - f(n) = 18 + 8 = 26
[[5,4,8][7,0,2][3,1,6]] - Already visited Node!
[[5,4,8][3,7,2][0,1,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[5,4,8][7,1,2][3,0,6]]
Generated Nodes:
[[5,4,8][7,0,2][3,1,6]] - Already visited Node!
[[5,4,8][7,1,2][3,6,0]] - f(n) = 18 + 8 = 26
[[5,4,8][7,1,2][0,3,6]] - f(n) =
                                  18 + 8 = 26
Node Chosen for Level 18 - [[8,7,2][5,4,0][3,1,6]]
Generated Nodes:
[[8,7,0][5,4,2][3,1,6]] - f(n) = 18 + 8 = 26
[[8,7,2][5,0,4][3,1,6]] - Already visited Node!
[[8,7,2][5,4,6][3,1,0]] - Already visited Node!
```

```
Node Chosen for Level 18 - [[8,7,2][5,1,4][3,0,6]]
Generated Nodes:
[[8,7,2][5,0,4][3,1,6]] - Already visited Node!
[[8,7,2][5,1,4][3,6,0]] - f(n) = 18 + 8 = 26
[[8,7,2][5,1,4][0,3,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[5,0,2][3,8,4][1,7,6]]
Generated Nodes:
[[5,2,0][3,8,4][1,7,6]] - f(n) = 18 + 7 = 25
[[0,5,2][3,8,4][1,7,6]] - f(n) = 18 + 8 = 26
[[5,8,2][3,0,4][1,7,6]] - Already visited Node!
Node Chosen for Level 18 - [[5,8,2][3,4,0][1,7,6]]
Generated Nodes:
[[5,8,0][3,4,2][1,7,6]] - f(n) = 18 + 8 = 26
[[5,8,2][3,0,4][1,7,6]] - Already visited Node!
[[5,8,2][3,4,6][1,7,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[5,8,2][0,3,4][1,7,6]]
Generated Nodes:
[[0,8,2][5,3,4][1,7,6]] - f(n) = 18 + 8 = 26
[[5,8,2][3,0,4][1,7,6]] - Already visited Node!
[[5,8,2][1,3,4][0,7,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[5,8,2][3,7,0][1,6,4]]
Generated Nodes:
[[5,8,0][3,7,2][1,6,4]] - f(n) = 18 + 8 = 26
[[5,8,2][3,0,7][1,6,4]] - f(n) = 18 + 8 = 26
[[5,8,2][3,7,4][1,6,0]] - Already visited Node!
Node Chosen for Level 18 - [[5,0,8][7,1,2][3,6,4]]
Generated Nodes:
[[5,8,0][7,1,2][3,6,4]] - Already visited Node!
[[0,5,8][7,1,2][3,6,4]] - f(n) = 18 + 8 = 26
[[5,1,8][7,0,2][3,6,4]] - f(n) =
                                  18 + 8 = 26
Node Chosen for Level 18 - [[5,8,2][0,7,1][3,6,4]]
Generated Nodes:
```

```
[[0,8,2][5,7,1][3,6,4]] - f(n) = 18 + 8 = 26
[[5,8,2][7,0,1][3,6,4]] - Already visited Node!
[[5,8,2][3,7,1][0,6,4]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[5,8,2][7,6,1][3,0,4]]
Generated Nodes:
[[5,8,2][7,0,1][3,6,4]] - Already visited Node!
[[5,8,2][7,6,1][3,4,0]] - f(n) = 18 + 8 = 26
[[5,8,2][7,6,1][0,3,4]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[3,7,5][0,8,2][1,6,4]]
Generated Nodes:
[[0,7,5][3,8,2][1,6,4]] - Already visited Node!
[[3,7,5][8,0,2][1,6,4]] - f(n) = 18 + 8 = 26
[[3,7,5][1,8,2][0,6,4]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,8,5][3,2,0][1,6,4]]
Generated Nodes:
[[7,8,0][3,2,5][1,6,4]] - f(n) = 18 + 8 = 26
[[7,8,5][3,0,2][1,6,4]] - Already visited Node!
[[7,8,5][3,2,4][1,6,0]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,8,5][0,3,2][1,6,4]]
Generated Nodes:
[[0,8,5][7,3,2][1,6,4]] - f(n) = 18 + 8 = 26
[[7,8,5][3,0,2][1,6,4]] - Already visited Node!
[[7,8,5][1,3,2][0,6,4]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,8,5][3,6,2][1,0,4]]
Generated Nodes:
[[7,8,5][3,0,2][1,6,4]] - Already visited Node!
[[7,8,5][3,6,2][1,4,0]] - f(n) = 18 + 8 = 26
[[7,8,5][3,6,2][0,1,4]] - f(n) =
                                  18 + 8 = 26
Node Chosen for Level 18 - [[5,0,2][7,3,8][1,6,4]]
Generated Nodes:
[[5,2,0][7,3,8][1,6,4]] - f(n) = 18 + 7 = 25
[[0,5,2][7,3,8][1,6,4]] - Already visited Node!
[[5,3,2][7,0,8][1,6,4]] - f(n) = 18 + 8 = 26
```

```
Node Chosen for Level 18 - [[7,5,2][1,3,8][6,0,4]]
Generated Nodes:
[[7,5,2][1,0,8][6,3,4]] - f(n) = 18 + 8 = 26
[[7,5,2][1,3,8][6,4,0]] - f(n) = 18 + 8 = 26
[[7,5,2][1,3,8][0,6,4]] - Already visited Node!
Node Chosen for Level 18 - [[7,5,2][3,6,0][1,4,8]]
Generated Nodes:
[[7,5,0][3,6,2][1,4,8]] - f(n) = 18 + 8 = 26
[[7,5,2][3,0,6][1,4,8]] - Already visited Node!
[[7,5,2][3,6,8][1,4,0]] - Already visited Node!
Node Chosen for Level 18 - [[7,5,2][0,6,8][3,1,4]]
Generated Nodes:
[[0,5,2][7,6,8][3,1,4]] - f(n) = 18 + 8 = 26
[[7,5,2][6,0,8][3,1,4]] - f(n) = 18 + 8 = 26
[[7,5,2][3,6,8][0,1,4]] - Already visited Node!
Node Chosen for Level 18 - [[8,0,5][1,7,2][3,6,4]]
Generated Nodes:
[[8,5,0][1,7,2][3,6,4]] - f(n) = 18 + 8 = 26
[[0,8,5][1,7,2][3,6,4]] - f(n) = 18 + 8 = 26
[[8,7,5][1,0,2][3,6,4]] - Already visited Node!
Node Chosen for Level 18 - [[8,7,5][1,2,0][3,6,4]]
Generated Nodes:
[[8,7,0][1,2,5][3,6,4]] - f(n) = 18 + 8 = 26
[[8,7,5][1,0,2][3,6,4]] - Already visited Node!
[[8,7,5][1,2,4][3,6,0]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[8,7,5][1,6,2][3,0,4]]
Generated Nodes:
[[8,7,5][1,0,2][3,6,4]] - Already visited Node!
[[8,7,5][1,6,2][3,4,0]] - f(n) = 18 + 8 = 26
[[8,7,5][1,6,2][0,3,4]] - f(n) =
                                  18 + 8 = 26
Node Chosen for Level 18 - [[8,7,5][3,1,2][6,0,4]]
Generated Nodes:
```

```
[[8,7,5][3,0,2][6,1,4]] - f(n) = 18 + 8 = 26
[[8,7,5][3,1,2][6,4,0]] - f(n) = 18 + 8 = 26
[[8,7,5][3,1,2][0,6,4]] - Already visited Node!
Node Chosen for Level 18 - [[7,0,1][8,2,5][3,6,4]]
Generated Nodes:
[[7,1,0][8,2,5][3,6,4]] - Already visited Node!
[[0,7,1][8,2,5][3,6,4]] - f(n) = 18 + 8 = 26
[[7,2,1][8,0,5][3,6,4]] - Already visited Node!
Node Chosen for Level 18 - [[7,1,5][8,2,4][3,0,6]]
Generated Nodes:
[[7,1,5][8,0,4][3,2,6]] - f(n) = 18 + 8 = 26
[[7,1,5][8,2,4][3,6,0]] - Already visited Node!
[[7,1,5][8,2,4][0,3,6]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,1,5][3,8,2][6,0,4]]
Generated Nodes:
[[7,1,5][3,0,2][6,8,4]] - f(n) = 18 + 7 = 25
[[7,1,5][3,8,2][6,4,0]] - f(n) = 18 + 8 = 26
[[7,1,5][3,8,2][0,6,4]] - Already visited Node!
Node Chosen for Level 18 - [[7,1,5][8,6,0][3,4,2]]
Generated Nodes:
[[7,1,0][8,6,5][3,4,2]] - f(n) = 18 + 8 = 26
[[7,1,5][8,0,6][3,4,2]] - f(n) = 18 + 7 = 25
[[7,1,5][8,6,2][3,4,0]] - Already visited Node!
Node Chosen for Level 18 - [[7,1,5][0,6,2][8,3,4]]
Generated Nodes:
[[0,1,5][7,6,2][8,3,4]] - f(n) = 18 + 8 = 26
[[7,1,5][6,0,2][8,3,4]] - f(n) = 18 + 8 = 26
[[7,1,5][8,6,2][0,3,4]] - Already visited Node!
Node Chosen for Level 18 - [[5,8,2][0,7,1][3,6,4]]
Generated Nodes:
[[0,8,2][5,7,1][3,6,4]] - f(n) = 18 + 8 = 26
[[5,8,2][7,0,1][3,6,4]] - Already visited Node!
[[5,8,2][3,7,1][0,6,4]] - f(n) = 18 + 8 = 26
```

```
Node Chosen for Level 18 - [[5,8,2][7,6,1][3,0,4]]
Generated Nodes:
[[5,8,2][7,0,1][3,6,4]] - Already visited Node!
[[5,8,2][7,6,1][3,4,0]] - f(n) = 18 + 8 = 26
[[5,8,2][7,6,1][0,3,4]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,5,2][3,8,0][6,4,1]]
Generated Nodes:
[[7,5,0][3,8,2][6,4,1]] - f(n) = 18 + 8 = 26
[[7,5,2][3,0,8][6,4,1]] - f(n) = 18 + 8 = 26
[[7,5,2][3,8,1][6,4,0]] - Already visited Node!
Node Chosen for Level 18 - [[5,0,2][7,6,1][8,3,4]]
Generated Nodes:
[[5,2,0][7,6,1][8,3,4]] - f(n) = 18 + 7 = 25
[[0,5,2][7,6,1][8,3,4]] - Already visited Node!
[[5,6,2][7,0,1][8,3,4]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,5,2][6,1,0][8,3,4]]
Generated Nodes:
[[7,5,0][6,1,2][8,3,4]] - f(n) = 18 + 8 = 26
[[7,5,2][6,0,1][8,3,4]] - Already visited Node!
[[7,5,2][6,1,4][8,3,0]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,5,2][6,3,1][8,0,4]]
Generated Nodes:
[[7,5,2][6,0,1][8,3,4]] - Already visited Node!
[[7,5,2][6,3,1][8,4,0]] - f(n) = 18 + 8 = 26
[[7,5,2][6,3,1][0,8,4]] - f(n) =
                                  18 + 7 = 25
Node Chosen for Level 18 - [[5,0,1][7,4,2][8,3,6]]
Generated Nodes:
[[5,1,0][7,4,2][8,3,6]] - Already visited Node!
[[0,5,1][7,4,2][8,3,6]] - f(n) = 18 + 8 = 26
[[5,4,1][7,0,2][8,3,6]] - f(n) =
                                  18 + 8 = 26
Node Chosen for Level 18 - [[5,1,2][8,7,4][3,0,6]]
Generated Nodes:
```

```
[[5,1,2][8,0,4][3,7,6]] - f(n) = 18 + 8 = 26
[[5,1,2][8,7,4][3,6,0]] - f(n) = 18 + 8 = 26
[[5,1,2][8,7,4][0,3,6]] - Already visited Node!
Node Chosen for Level 18 - [[5,1,2][7,3,0][8,6,4]]
Generated Nodes:
[[5,1,0][7,3,2][8,6,4]] - f(n) = 18 + 8 = 26
[[5,1,2][7,0,3][8,6,4]] - f(n) = 18 + 8 = 26
[[5,1,2][7,3,4][8,6,0]] - Already visited Node!
Node Chosen for Level 18 - [[7,4,5][1,2,0][8,3,6]]
Generated Nodes:
[[7,4,0][1,2,5][8,3,6]] - f(n) = 18 + 8 = 26
[[7,4,5][1,0,2][8,3,6]] - Already visited Node!
[[7,4,5][1,2,6][8,3,0]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,4,5][1,3,2][8,0,6]]
Generated Nodes:
[[7,4,5][1,0,2][8,3,6]] - Already visited Node!
[[7,4,5][1,3,2][8,6,0]] - f(n) = 18 + 8 = 26
[[7,4,5][1,3,2][0,8,6]] - f(n) = 18 + 7 = 25
Node Chosen for Level 18 - [[7,0,5][1,3,2][8,6,4]]
Generated Nodes:
[[7,5,0][1,3,2][8,6,4]] - Already visited Node!
[[0,7,5][1,3,2][8,6,4]] - f(n) = 18 + 8 = 26
[[7,3,5][1,0,2][8,6,4]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,5,2][0,1,3][8,6,4]]
Generated Nodes:
[[0,5,2][7,1,3][8,6,4]] - f(n) = 18 + 8 = 26
[[7,5,2][1,0,3][8,6,4]] - Already visited Node!
[[7,5,2][8,1,3][0,6,4]] - f(n) = 18 + 8 = 26
Node Chosen for Level 18 - [[7,5,2][1,6,3][8,0,4]]
Generated Nodes:
[[7,5,2][1,0,3][8,6,4]] - Already visited Node!
[[7,5,2][1,6,3][8,4,0]] - f(n) = 18 + 8 = 26
[[7,5,2][1,6,3][0,8,4]] - f(n) = 18 + 7 = 25
```

```
Node Chosen for Level 19 - [[0,8,2][5,7,6][3,4,1]]
Generated Nodes:
[[8,0,2][5,7,6][3,4,1]] - Already visited Node!
[[5,8,2][0,7,6][3,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][3,7,6][0,4,1]]
Generated Nodes:
[[5,8,2][0,7,6][3,4,1]] - Already visited Node!
[[5,8,2][3,7,6][4,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,4,2][5,7,6][8,3,1]]
Generated Nodes:
[[4,0,2][5,7,6][8,3,1]] - f(n) = 19 + 7 = 26
[[5,4,2][0,7,6][8,3,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,4,2][8,7,6][0,3,1]]
Generated Nodes:
[[5,4,2][0,7,6][8,3,1]] - Already visited Node!
[[5,4,2][8,7,6][3,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[5,4,2][7,3,6][8,1,0]]
Generated Nodes:
[[5,4,2][7,3,0][8,1,6]] - f(n) = 19 + 8 = 27
[[5,4,2][7,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][3,0,8][1,7,6]]
Generated Nodes:
[[5,0,4][3,2,8][1,7,6]] - f(n) = 19 + 8 = 27
[[5,2,4][3,8,0][1,7,6]] - f(n) = 19 + 7 = 26
[[5,2,4][0,3,8][1,7,6]] - f(n) = 19 + 7 = 26
[[5,2,4][3,7,8][1,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][3,7,8][1,6,0]]
Generated Nodes:
[[5,2,4][3,7,0][1,6,8]] - f(n) = 19 + 7 = 26
[[5,2,4][3,7,8][1,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,0][7,1,4][3,6,8]]
```

```
Generated Nodes:
[[5,0,2][7,1,4][3,6,8]] - f(n) = 19 + 8 = 27
[[5,2,4][7,1,0][3,6,8]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][7,0,1][3,6,8]]
Generated Nodes:
[[5,0,4][7,2,1][3,6,8]] - f(n) = 19 + 8 = 27
[[5,2,4][7,1,0][3,6,8]] - Already visited Node!
[[5,2,4][0,7,1][3,6,8]] - f(n) = 19 + 7 = 26
[[5,2,4][7,6,1][3,0,8]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[3,7,5][1,4,2][0,8,6]]
Generated Nodes:
[[3,7,5][0,4,2][1,8,6]] - Already visited Node!
[[3,7,5][1,4,2][8,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,4,0][3,2,5][1,8,6]]
Generated Nodes:
[[7,0,4][3,2,5][1,8,6]] - Already visited Node!
[[7,4,5][3,2,0][1,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,4,5][7,3,2][1,8,6]]
Generated Nodes:
[[4,0,5][7,3,2][1,8,6]] - f(n) = 19 + 7 = 26
[[7,4,5][0,3,2][1,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][1,3,2][0,8,6]]
Generated Nodes:
[[7,4,5][0,3,2][1,8,6]] - Already visited Node!
[[7,4,5][1,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,3,0][7,4,2][1,8,6]]
Generated Nodes:
[[5,0,3][7,4,2][1,8,6]] - f(n) = 19 + 6 = 25
[[5,3,2][7,4,0][1,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,3,2][5,7,4][1,8,6]]
```

```
Generated Nodes:
[[3,0,2][5,7,4][1,8,6]] - Already visited Node!
[[5,3,2][0,7,4][1,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,3,2][1,7,4][0,8,6]]
Generated Nodes:
[[5,3,2][0,7,4][1,8,6]] - Already visited Node!
[[5,3,2][1,7,4][8,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[8,7,2][3,5,1][6,4,0]]
Generated Nodes:
[[8,7,2][3,5,0][6,4,1]] - f(n) = 19 + 7 = 26
[[8,7,2][3,5,1][6,0,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,1][0,5,4][8,3,6]]
Generated Nodes:
[[0,2,1][7,5,4][8,3,6]] - f(n) = 20 + 6 = 26
[[7,2,1][5,0,4][8,3,6]] - f(n) = 20 + 7 = 27
[[7,2,1][8,5,4][0,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[8,5,2][4,0,7][3,1,6]]
Generated Nodes:
[[8,0,2][4,5,7][3,1,6]] - f(n) = 19 + 6 = 25
[[8,5,2][4,7,0][3,1,6]] - Already visited Node!
[[8,5,2][0,4,7][3,1,6]] - f(n) = 19 + 8 = 27
[[8,5,2][4,1,7][3,0,6]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,8,7][4,2,5][3,1,6]]
Generated Nodes:
[[8,0,7][4,2,5][3,1,6]] - Already visited Node!
[[4,8,7][0,2,5][3,1,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[8,7,0][4,1,5][3,6,2]]
Generated Nodes:
[[8,0,7][4,1,5][3,6,2]] - f(n) = 19 + 7 = 26
[[8,7,5][4,1,0][3,6,2]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,5][4,0,1][3,6,2]]
```

```
Generated Nodes:
[[8,0,5][4,7,1][3,6,2]] - f(n) = 19 + 7 = 26
[[8,7,5][4,1,0][3,6,2]] - Already visited Node!
[[8,7,5][0,4,1][3,6,2]] - f(n) = 19 + 8 = 27
[[8,7,5][4,6,1][3,0,2]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,5,0][8,4,6][3,2,1]]
Generated Nodes:
[[7,0,5][8,4,6][3,2,1]] - Already visited Node!
[[7,5,6][8,4,0][3,2,1]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,7,5][8,4,6][3,2,1]]
Generated Nodes:
[[7,0,5][8,4,6][3,2,1]] - Already visited Node!
[[8,7,5][0,4,6][3,2,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,4,5][7,8,6][3,2,1]]
Generated Nodes:
[[4,0,5][7,8,6][3,2,1]] - f(n) = 19 + 7 = 26
[[7,4,5][0,8,6][3,2,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][3,8,6][0,2,1]]
Generated Nodes:
[[7,4,5][0,8,6][3,2,1]] - Already visited Node!
[[7,4,5][3,8,6][2,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,4,5][7,2,6][8,3,1]]
Generated Nodes:
[[4,0,5][7,2,6][8,3,1]] - f(n) = 19 + 7 = 26
[[7,4,5][0,2,6][8,3,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][2,0,6][8,3,1]]
Generated Nodes:
[[7,0,5][2,4,6][8,3,1]] - f(n) = 19 + 7 = 26
[[7,4,5][2,6,0][8,3,1]] - f(n) = 19 + 8 = 27
[[7,4,5][0,2,6][8,3,1]] - Already visited Node!
[[7,4,5][2,3,6][8,0,1]] - f(n) = 19 + 7 = 26
```

Node Chosen for Level 19 - [[0,8,2][5,7,6][3,4,1]]

```
Generated Nodes:
[[8,0,2][5,7,6][3,4,1]] - Already visited Node!
[[5,8,2][0,7,6][3,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][3,7,6][0,4,1]]
Generated Nodes:
[[5,8,2][0,7,6][3,4,1]] - Already visited Node!
[[5,8,2][3,7,6][4,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,2,4][5,7,1][8,3,6]]
Generated Nodes:
[[2,0,4][5,7,1][8,3,6]] - f(n) = 19 + 8 = 27
[[5,2,4][0,7,1][8,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,2,4][8,7,1][0,3,6]]
Generated Nodes:
[[5,2,4][0,7,1][8,3,6]] - Already visited Node!
[[5,2,4][8,7,1][3,0,6]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[5,2,4][7,3,1][8,6,0]]
Generated Nodes:
[[5,2,4][7,3,0][8,6,1]] - f(n) = 19 + 7 = 26
[[5,2,4][7,3,1][8,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,5,2][7,1,6][8,4,3]]
Generated Nodes:
[[5,0,2][7,1,6][8,4,3]] - f(n) = 19 + 7 = 26
[[7,5,2][0,1,6][8,4,3]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][8,1,6][0,4,3]]
Generated Nodes:
[[7,5,2][0,1,6][8,4,3]] - Already visited Node!
[[7,5,2][8,1,6][4,0,3]] - f(n) = 19 + 7 = 26
Node Chosen for Level 20 - [[1,7,2][8,5,0][3,6,4]]
Generated Nodes:
```

```
[[1,7,0][8,5,2][3,6,4]] - f(n) = 20 + 6 = 26
[[1,7,2][8,0,5][3,6,4]] - f(n) = 20 + 7 = 27
[[1,7,2][8,5,4][3,6,0]] - Already visited Node!
Node Chosen for Level 19 - [[8,1,2][5,0,4][7,3,6]]
Generated Nodes:
[[8,0,2][5,1,4][7,3,6]] - Already visited Node!
[[8,1,2][5,4,0][7,3,6]] - f(n) = 19 + 7 = 26
[[8,1,2][0,5,4][7,3,6]] - f(n) = 19 + 6 = 25
[[8,1,2][5,3,4][7,0,6]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,5,2][1,8,4][7,3,6]]
Generated Nodes:
[[5,0,2][1,8,4][7,3,6]] - Already visited Node!
[[1,5,2][0,8,4][7,3,6]] - f(n) = 19 + 6 = 25
Node Chosen for Level 19 - [[5,8,0][1,4,2][7,3,6]]
Generated Nodes:
[[5,0,8][1,4,2][7,3,6]] - f(n) = 19 + 7 = 26
[[5,8,2][1,4,0][7,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][1,3,4][7,6,0]]
Generated Nodes:
[[5,8,2][1,3,0][7,6,4]] - f(n) = 19 + 7 = 26
[[5,8,2][1,3,4][7,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[3,7,2][1,5,8][0,6,4]]
Generated Nodes:
[[3,7,2][0,5,8][1,6,4]] - Already visited Node!
[[3,7,2][1,5,8][6,0,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 20 - [[5,0,2][7,3,6][4,8,1]]
Generated Nodes:
[[5,2,0][7,3,6][4,8,1]] - f(n) = 20 + 5 = 25
[[0,5,2][7,3,6][4,8,1]] - Already visited Node!
[[5,3,2][7,0,6][4,8,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[5,2,4][0,7,3][1,8,6]]
Generated Nodes:
```

```
[[0,2,4][5,7,3][1,8,6]] - f(n) = 20 + 6 = 26
[[5,2,4][7,0,3][1,8,6]] - Already visited Node!
[[5,2,4][1,7,3][0,8,6]] - f(n) = 20 + 6 = 26
Node Chosen for Level 21 - [[5,2,4][8,3,6][7,1,0]]
Generated Nodes:
[[5,2,4][8,3,0][7,1,6]] - f(n) = 21 + 6 = 27
[[5,2,4][8,3,6][7,0,1]] - Already visited Node!
Node Chosen for Level 20 - [[8,0,5][4,7,6][3,2,1]]
Generated Nodes:
[[8,5,0][4,7,6][3,2,1]] - f(n) = 20 + 6 = 26
[[0,8,5][4,7,6][3,2,1]] - f(n) = 20 + 6 = 26
[[8,7,5][4,0,6][3,2,1]] - Already visited Node!
Node Chosen for Level 20 - [[5,2,4][0,7,6][8,1,3]]
Generated Nodes:
[[0,2,4][5,7,6][8,1,3]] - f(n) = 20 + 6 = 26
[[5,2,4][7,0,6][8,1,3]] - Already visited Node!
[[5,2,4][8,7,6][0,1,3]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[5,0,2][7,4,6][1,8,3]]
Generated Nodes:
[[5,2,0][7,4,6][1,8,3]] - f(n) = 20 + 5 = 25
[[0,5,2][7,4,6][1,8,3]] - Already visited Node!
[[5,4,2][7,0,6][1,8,3]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,2,8][3,5,4][1,0,6]]
Generated Nodes:
[[7,2,8][3,0,4][1,5,6]] - f(n) = 20 + 7 = 27
[[7,2,8][3,5,4][1,6,0]] - Already visited Node!
[[7,2,8][3,5,4][0,1,6]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[3,7,2][0,5,6][1,4,8]]
Generated Nodes:
[[0,7,2][3,5,6][1,4,8]] - Already visited Node!
[[3,7,2][5,0,6][1,4,8]] - f(n) = 20 + 7 = 27
[[3,7,2][1,5,6][0,4,8]] - f(n) = 20 + 6 = 26
```

```
Node Chosen for Level 19 - [[7,4,0][3,2,5][1,8,6]]
Generated Nodes:
[[7,0,4][3,2,5][1,8,6]] - Already visited Node!
[[7,4,5][3,2,0][1,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,4,5][7,3,2][1,8,6]]
Generated Nodes:
[[4,0,5][7,3,2][1,8,6]] - f(n) = 19 + 7 = 26
[[7,4,5][0,3,2][1,8,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][1,3,2][0,8,6]]
Generated Nodes:
[[7,4,5][0,3,2][1,8,6]] - Already visited Node!
[[7,4,5][1,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[8,2,4][5,0,7][3,1,6]]
Generated Nodes:
[[8,0,4][5,2,7][3,1,6]] - f(n) = 19 + 8 = 27
[[8,2,4][5,7,0][3,1,6]] - Already visited Node!
[[8,2,4][0,5,7][3,1,6]] - f(n) = 19 + 6 = 25
[[8,2,4][5,1,7][3,0,6]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[5,2,1][7,0,8][3,6,4]]
Generated Nodes:
[[5,0,1][7,2,8][3,6,4]] - f(n) = 19 + 8 = 27
[[5,2,1][7,8,0][3,6,4]] - Already visited Node!
[[5,2,1][0,7,8][3,6,4]] - f(n) = 19 + 7 = 26
[[5,2,1][7,6,8][3,0,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[5,2,1][7,8,4][3,6,0]]
Generated Nodes:
[[5,2,1][7,8,0][3,6,4]] - Already visited Node!
[[5,2,1][7,8,4][3,0,6]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,5,0][3,1,2][6,8,4]]
Generated Nodes:
[[7,0,5][3,1,2][6,8,4]] - f(n) = 19 + 7 = 26
[[7,5,2][3,1,0][6,8,4]] - Already visited Node!
```

```
Node Chosen for Level 19 - [[7,5,2][3,1,4][6,8,0]]
Generated Nodes:
[[7,5,2][3,1,0][6,8,4]] - Already visited Node!
[[7,5,2][3,1,4][6,0,8]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,5,2][7,3,1][6,8,4]]
Generated Nodes:
[[5,0,2][7,3,1][6,8,4]] - f(n) = 19 + 7 = 26
[[7,5,2][0,3,1][6,8,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][6,3,1][0,8,4]]
Generated Nodes:
[[7,5,2][0,3,1][6,8,4]] - Already visited Node!
[[7,5,2][6,3,1][8,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,1,2][7,0,6][8,4,3]]
Generated Nodes:
[[5,0,2][7,1,6][8,4,3]] - f(n) = 19 + 7 = 26
[[5,1,2][7,6,0][8,4,3]] - f(n) = 19 + 8 = 27
[[5,1,2][0,7,6][8,4,3]] - f(n) = 19 + 7 = 26
[[5,1,2][7,4,6][8,0,3]] - Already visited Node!
Node Chosen for Level 20 - [[5,2,4][1,8,0][7,3,6]]
Generated Nodes:
[[5,2,0][1,8,4][7,3,6]] - Already visited Node!
[[5,2,4][1,0,8][7,3,6]] - Already visited Node!
[[5,2,4][1,8,6][7,3,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 20 - [[5,2,4][1,3,8][7,0,6]]
Generated Nodes:
[[5,2,4][1,0,8][7,3,6]] - Already visited Node!
[[5,2,4][1,3,8][7,6,0]] - f(n) = 20 + 6 = 26
[[5,2,4][1,3,8][0,7,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[8,0,2][5,4,6][7,3,1]]
Generated Nodes:
[[8,2,0][5,4,6][7,3,1]] - f(n) = 20 + 5 = 25
```

```
[[0,8,2][5,4,6][7,3,1]] - Already visited Node!
[[8,4,2][5,0,6][7,3,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[3,7,2][0,5,1][6,8,4]]
Generated Nodes:
[[0,7,2][3,5,1][6,8,4]] - Already visited Node!
[[3,7,2][5,0,1][6,8,4]] - f(n) = 20 + 7 = 27
[[3,7,2][6,5,1][0,8,4]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[5,0,2][3,1,4][7,8,6]]
Generated Nodes:
[[5,2,0][3,1,4][7,8,6]] - f(n) = 20 + 5 = 25
[[0,5,2][3,1,4][7,8,6]] - f(n) = 20 + 6 = 26
[[5,1,2][3,0,4][7,8,6]] - Already visited Node!
Node Chosen for Level 20 - [[5,1,2][3,4,0][7,8,6]]
Generated Nodes:
[[5,1,0][3,4,2][7,8,6]] - f(n) = 20 + 6 = 26
[[5,1,2][3,0,4][7,8,6]] - Already visited Node!
[[5,1,2][3,4,6][7,8,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 21 - [[0,5,2][4,8,6][7,3,1]]
Generated Nodes:
[[5,0,2][4,8,6][7,3,1]] - Already visited Node!
[[4,5,2][0,8,6][7,3,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,8,2][4,3,6][7,1,0]]
Generated Nodes:
[[5,8,2][4,3,0][7,1,6]] - f(n) = 21 + 6 = 27
[[5,8,2][4,3,6][7,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,1][3,5,4][6,8,0]]
Generated Nodes:
[[7,2,1][3,5,0][6,8,4]] - Already visited Node!
[[7,2,1][3,5,4][6,0,8]] - f(n) = 21 + 6 = 27
Node Chosen for Level 20 - [[3,2,4][5,7,0][1,8,6]]
Generated Nodes:
```

```
[[3,2,0][5,7,4][1,8,6]] - Already visited Node!
[[3,2,4][5,0,7][1,8,6]] - f(n) = 20 + 6 = 26
[[3,2,4][5,7,6][1,8,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 20 - [[1,2,4][5,7,0][8,3,6]]
Generated Nodes:
[[1,2,0][5,7,4][8,3,6]] - Already visited Node!
[[1,2,4][5,0,7][8,3,6]] - f(n) = 20 + 6 = 26
[[1,2,4][5,7,6][8,3,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 20 - [[1,7,2][5,4,6][8,0,3]]
Generated Nodes:
[[1,7,2][5,0,6][8,4,3]] - f(n) = 20 + 6 = 26
[[1,7,2][5,4,6][8,3,0]] - Already visited Node!
[[1,7,2][5,4,6][0,8,3]] - f(n) = 20 + 5 = 25
Node Chosen for Level 20 - [[1,7,2][0,3,4][5,8,6]]
Generated Nodes:
[[0,7,2][1,3,4][5,8,6]] - f(n) = 20 + 7 = 27
[[1,7,2][3,0,4][5,8,6]] - f(n) = 20 + 6 = 26
[[1,7,2][5,3,4][0,8,6]] - Already visited Node!
Node Chosen for Level 20 - [[7,5,2][4,1,6][3,0,8]]
Generated Nodes:
[[7,5,2][4,0,6][3,1,8]] - Already visited Node!
[[7,5,2][4,1,6][3,8,0]] - f(n) = 20 + 5 = 25
[[7,5,2][4,1,6][0,3,8]] - f(n) = 20 + 6 = 26
Node Chosen for Level 19 - [[0,7,2][8,5,4][3,1,6]]
Generated Nodes:
[[7,0,2][8,5,4][3,1,6]] - Already visited Node!
[[8,7,2][0,5,4][3,1,6]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,2][3,5,4][0,1,6]]
Generated Nodes:
[[8,7,2][0,5,4][3,1,6]] - Already visited Node!
[[8,7,2][3,5,4][1,0,6]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[1,5,0][7,8,2][3,6,4]]
```

```
Generated Nodes:
[[1,0,5][7,8,2][3,6,4]] - Already visited Node!
[[1,5,2][7,8,0][3,6,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[1,8,5][7,0,2][3,6,4]]
Generated Nodes:
[[1,0,5][7,8,2][3,6,4]] - Already visited Node!
[[1,8,5][7,2,0][3,6,4]] - f(n) = 19 + 7 = 26
[[1,8,5][0,7,2][3,6,4]] - f(n) = 19 + 7 = 26
[[1,8,5][7,6,2][3,0,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,7,2][6,5,1][8,3,4]]
Generated Nodes:
[[7,0,2][6,5,1][8,3,4]] - Already visited Node!
[[6,7,2][0,5,1][8,3,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[1,7,5][8,4,2][0,3,6]]
Generated Nodes:
[[1,7,5][0,4,2][8,3,6]] - Already visited Node!
[[1,7,5][8,4,2][3,0,6]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[0,7,2][1,5,3][8,6,4]]
Generated Nodes:
[[7,0,2][1,5,3][8,6,4]] - Already visited Node!
[[1,7,2][0,5,3][8,6,4]] - f(n) = 19 + 6 = 25
Node Chosen for Level 20 - [[3,0,5][4,7,2][1,8,6]]
Generated Nodes:
[[3,5,0][4,7,2][1,8,6]] - f(n) = 20 + 6 = 26
[[0,3,5][4,7,2][1,8,6]] - f(n) = 20 + 6 = 26
[[3,7,5][4,0,2][1,8,6]] - Already visited Node!
Node Chosen for Level 20 - [[3,7,5][4,2,0][1,8,6]]
Generated Nodes:
[[3,7,0][4,2,5][1,8,6]] - f(n) = 20 + 6 = 26
[[3,7,5][4,0,2][1,8,6]] - Already visited Node!
[[3,7,5][4,2,6][1,8,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 20 - [[8,5,2][4,7,6][3,0,1]]
```

```
Generated Nodes:
[[8,5,2][4,0,6][3,7,1]] - f(n) = 20 + 6 = 26
[[8,5,2][4,7,6][3,1,0]] - Already visited Node!
[[8,5,2][4,7,6][0,3,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[8,2,7][4,1,5][3,0,6]]
Generated Nodes:
[[8,2,7][4,0,5][3,1,6]] - Already visited Node!
[[8,2,7][4,1,5][3,6,0]] - f(n) = 20 + 6 = 26
[[8,2,7][4,1,5][0,3,6]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[8,2,4][5,1,0][7,3,6]]
Generated Nodes:
[[8,2,0][5,1,4][7,3,6]] - Already visited Node!
[[8,2,4][5,0,1][7,3,6]] - f(n) = 20 + 6 = 26
[[8,2,4][5,1,6][7,3,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 20 - [[5,2,4][1,8,0][7,3,6]]
Generated Nodes:
[[5,2,0][1,8,4][7,3,6]] - Already visited Node!
[[5,2,4][1,0,8][7,3,6]] - Already visited Node!
[[5,2,4][1,8,6][7,3,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 20 - [[5,8,2][1,4,6][7,0,3]]
Generated Nodes:
[[5,8,2][1,0,6][7,4,3]] - f(n) = 20 + 6 = 26
[[5,8,2][1,4,6][7,3,0]] - Already visited Node!
[[5,8,2][1,4,6][0,7,3]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[8,2,4][5,7,6][3,0,1]]
Generated Nodes:
[[8,2,4][5,0,6][3,7,1]] - f(n) = 20 + 6 = 26
[[8,2,4][5,7,6][3,1,0]] - Already visited Node!
[[8,2,4][5,7,6][0,3,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 21 - [[1,7,2][8,5,6][0,4,3]]
Generated Nodes:
```

[[1,7,2][0,5,6][8,4,3]] - Already visited Node!

```
[[1,7,2][8,5,6][4,0,3]] - f(n) = 21 + 5 = 26
Node Chosen for Level 21 - [[1,3,2][5,0,4][7,8,6]]
Generated Nodes:
[[1,0,2][5,3,4][7,8,6]] - Already visited Node!
[[1,3,2][5,4,0][7,8,6]] - f(n) = 21 + 5 = 26
[[1,3,2][0,5,4][7,8,6]] - f(n) =
                                 21 + 4 = 25
[[1,3,2][5,8,4][7,0,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[0,7,2][4,5,6][3,1,8]]
Generated Nodes:
[[7,0,2][4,5,6][3,1,8]] - Already visited Node!
[[4,7,2][0,5,6][3,1,8]] - f(n) = 21 + 6 = 27
Node Chosen for Level 20 - [[7,2,1][6,5,0][8,3,4]]
Generated Nodes:
[[7,2,0][6,5,1][8,3,4]] - Already visited Node!
[[7,2,1][6,0,5][8,3,4]] - f(n) = 20 + 7 = 27
[[7,2,1][6,5,4][8,3,0]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[1,0,5][4,7,2][8,3,6]]
Generated Nodes:
[[1,5,0][4,7,2][8,3,6]] - f(n) = 20 + 6 = 26
[[0,1,5][4,7,2][8,3,6]] - f(n) = 20 + 7 = 27
[[1,7,5][4,0,2][8,3,6]] - Already visited Node!
Node Chosen for Level 20 - [[1,7,5][4,2,0][8,3,6]]
Generated Nodes:
[[1,7,0][4,2,5][8,3,6]] - f(n) = 20 + 6 = 26
[[1,7,5][4,0,2][8,3,6]] - Already visited Node!
[[1,7,5][4,2,6][8,3,0]] - f(n) = 20 + 5 = 25
Node Chosen for Level 20 - [[1,7,5][4,3,2][8,0,6]]
Generated Nodes:
[[1,7,5][4,0,2][8,3,6]] - Already visited Node!
[[1,7,5][4,3,2][8,6,0]] - f(n) = 20 + 6 = 26
[[1,7,5][4,3,2][0,8,6]] - f(n) = 20 + 5 = 25
Node Chosen for Level 21 - [[0,4,2][5,3,6][7,8,1]]
```

```
Generated Nodes:
[[4,0,2][5,3,6][7,8,1]] - f(n) = 21 + 5 = 26
[[5,4,2][0,3,6][7,8,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,2][3,0,6][7,8,1]]
Generated Nodes:
[[5,0,2][3,4,6][7,8,1]] - f(n) = 21 + 5 = 26
[[5,4,2][3,6,0][7,8,1]] - f(n) = 21 + 6 = 27
[[5,4,2][0,3,6][7,8,1]] - Already visited Node!
[[5,4,2][3,8,6][7,0,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[8,2,0][4,5,7][3,1,6]]
Generated Nodes:
[[8,0,2][4,5,7][3,1,6]] - f(n) = 21 + 6 = 27
[[8,2,7][4,5,0][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,4][5,3,1][7,8,6]]
Generated Nodes:
[[2,0,4][5,3,1][7,8,6]] - f(n) = 21 + 6 = 27
[[5,2,4][0,3,1][7,8,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][3,0,1][7,8,6]]
Generated Nodes:
[[5,0,4][3,2,1][7,8,6]] - f(n) = 21 + 6 = 27
[[5,2,4][3,1,0][7,8,6]] - f(n) = 21 + 5 = 26
[[5,2,4][0,3,1][7,8,6]] - Already visited Node!
[[5,2,4][3,8,1][7,0,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[0,1,2][5,4,6][7,8,3]]
Generated Nodes:
[[1,0,2][5,4,6][7,8,3]] - f(n) = 21 + 4 = 25
[[5,1,2][0,4,6][7,8,3]] - Already visited Node!
Node Chosen for Level 22 - [[1,2,4][5,3,0][7,8,6]]
Generated Nodes:
[[1,2,0][5,3,4][7,8,6]] - Already visited Node!
[[1,2,4][5,0,3][7,8,6]] - f(n) = 22 + 4 = 26
[[1,2,4][5,3,6][7,8,0]] - f(n) = 22 + 3 = 25
```

```
Node Chosen for Level 21 - [[7,2,3][1,5,4][8,6,0]]
Generated Nodes:
[[7,2,3][1,5,0][8,6,4]] - Already visited Node!
[[7,2,3][1,5,4][8,0,6]] - f(n) = 21 + 5 = 26
Node Chosen for Level 22 - [[8,2,7][4,5,6][3,0,1]]
Generated Nodes:
[[8,2,7][4,0,6][3,5,1]] - f(n) = 22 + 5 = 27
[[8,2,7][4,5,6][3,1,0]] - Already visited Node!
[[8,2,7][4,5,6][0,3,1]] - f(n) = 22 + 4 = 26
Node Chosen for Level 22 - [[5,0,2][4,1,6][7,8,3]]
Generated Nodes:
[[5,2,0][4,1,6][7,8,3]] - f(n) = 22 + 3 = 25
[[0,5,2][4,1,6][7,8,3]] - f(n) = 22 + 4 = 26
[[5,1,2][4,0,6][7,8,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,6][4,3,5][0,8,1]]
Generated Nodes:
[[7,2,6][0,3,5][4,8,1]] - f(n) = 21 + 6 = 27
[[7,2,6][4,3,5][8,0,1]] - Already visited Node!
Node Chosen for Level 19 - [[8,2,0][5,7,1][3,6,4]]
Generated Nodes:
[[8,0,2][5,7,1][3,6,4]] - Already visited Node!
[[8,2,1][5,7,0][3,6,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 20 - [[7,0,2][4,5,3][8,1,6]]
Generated Nodes:
[[7,2,0][4,5,3][8,1,6]] - f(n) = 20 + 5 = 25
[[0,7,2][4,5,3][8,1,6]] - f(n) = 20 + 6 = 26
[[7,5,2][4,0,3][8,1,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,4,8][7,2,6][3,1,0]]
Generated Nodes:
[[5,4,8][7,2,0][3,1,6]] - Already visited Node!
[[5,4,8][7,2,6][3,0,1]] - f(n) = 19 + 7 = 26
```

```
Node Chosen for Level 21 - [[5,2,0][7,3,6][4,8,1]]
Generated Nodes:
[[5,0,2][7,3,6][4,8,1]] - Already visited Node!
[[5,2,6][7,3,0][4,8,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 20 - [[7,0,2][4,5,1][8,6,3]]
Generated Nodes:
[[7,2,0][4,5,1][8,6,3]] - f(n) = 20 + 5 = 25
[[0,7,2][4,5,1][8,6,3]] - f(n) = 20 + 6 = 26
[[7,5,2][4,0,1][8,6,3]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,5][3,2,6][1,4,0]]
Generated Nodes:
[[8,7,5][3,2,0][1,4,6]] - Already visited Node!
[[8,7,5][3,2,6][1,0,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[4,5,2][7,8,6][3,1,0]]
Generated Nodes:
[[4,5,2][7,8,0][3,1,6]] - Already visited Node!
[[4,5,2][7,8,6][3,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[4,8,5][7,2,6][3,1,0]]
Generated Nodes:
[[4,8,5][7,2,0][3,1,6]] - Already visited Node!
[[4,8,5][7,2,6][3,0,1]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,4,5][1,2,6][8,3,0]]
Generated Nodes:
[[7,4,5][1,2,0][8,3,6]] - Already visited Node!
[[7,4,5][1,2,6][8,0,3]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,4,5][1,3,2][0,8,6]]
Generated Nodes:
[[7,4,5][0,3,2][1,8,6]] - Already visited Node!
[[7,4,5][1,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,8][4,0,2][3,1,6]]
```

```
Generated Nodes :
```

[[7,0,8][4,5,2][3,1,6]] - f(n) = 19 + 6 = 25

$$[[7,5,8][4,2,0][3,1,6]] - f(n) = 19 + 7 = 26$$

[[7,5,8][0,4,2][3,1,6]] - Already visited Node! [[7,5,8][4,1,2][3,0,6]] - f(n) = 19 + 7 = 26

Node Chosen for Level 19 - [[5,4,8][7,2,6][3,1,0]]

Generated Nodes:

[[5,4,8][7,2,0][3,1,6]] - Already visited Node! [[5,4,8][7,2,6][3,0,1]] - f(n) = 19 + 7 = 26

Node Chosen for Level 19 - [[5,2,0][3,8,4][1,7,6]]

Generated Nodes:

[[5,0,2][3,8,4][1,7,6]] - Already visited Node!

[[5,2,4][3,8,0][1,7,6]] - f(n) = 19 + 7 = 26

Nada Chara far Laval 40 [[5 0 2] [2 4 6] [4 7 0]

Node Chosen for Level 19 - [[5,8,2][3,4,6][1,7,0]]

Generated Nodes:

[[5,8,2][3,4,0][1,7,6]] - Already visited Node! [[5,8,2][3,4,6][1,0,7]] - f(n) = 19 + 7 = 26

Node Chosen for Level 19 - [[5,2,0][7,3,8][1,6,4]]

Generated Nodes:

[[5,0,2][7,3,8][1,6,4]] - Already visited Node! [[5,2,8][7,3,0][1,6,4]] - f(n) = 19 + 7 = 26

Node Chosen for Level 19 - [[7,1,5][3,0,2][6,8,4]]

Generated Nodes:

[[7,0,5][3,1,2][6,8,4]] - f(n) = 19 + 7 = 26 [[7,1,5][3,2,0][6,8,4]] - f(n) = 19 + 7 = 26 [[7,1,5][0,3,2][6,8,4]] - f(n) = 19 + 7 = 26[[7,1,5][3,8,2][6,0,4]] - Already visited Node!

Node Chosen for Level 19 - [[7,1,5][8,0,6][3,4,2]]

Generated Nodes:

[[7,0,5][8,1,6][3,4,2]] - f(n) = 19 + 7 = 26

[[7,1,5][8,6,0][3,4,2]] - Already visited Node!

[[7,1,5][0,8,6][3,4,2]] - f(n) = 19 + 7 = 26

[[7,1,5][8,4,6][3,0,2]] - f(n) = 19 + 7 = 26

```
Node Chosen for Level 19 - [[5,2,0][7,6,1][8,3,4]]
Generated Nodes:
[[5,0,2][7,6,1][8,3,4]] - Already visited Node!
[[5,2,1][7,6,0][8,3,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,5,2][6,3,1][0,8,4]]
Generated Nodes:
[[7,5,2][0,3,1][6,8,4]] - Already visited Node!
[[7,5,2][6,3,1][8,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][1,2,6][8,3,0]]
Generated Nodes:
[[7,4,5][1,2,0][8,3,6]] - Already visited Node!
[[7,4,5][1,2,6][8,0,3]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,4,5][1,3,2][0,8,6]]
Generated Nodes:
[[7,4,5][0,3,2][1,8,6]] - Already visited Node!
[[7,4,5][1,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][1,6,3][0,8,4]]
Generated Nodes:
[[7,5,2][0,6,3][1,8,4]] - f(n) = 19 + 7 = 26
[[7,5,2][1,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 20 - [[5,0,3][7,4,2][1,8,6]]
Generated Nodes:
[[5,3,0][7,4,2][1,8,6]] - Already visited Node!
[[0,5,3][7,4,2][1,8,6]] - f(n) = 20 + 6 = 26
[[5,4,3][7,0,2][1,8,6]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[8,0,2][4,5,7][3,1,6]]
Generated Nodes:
[[8,2,0][4,5,7][3,1,6]] - Already visited Node!
[[0,8,2][4,5,7][3,1,6]] - f(n) = 20 + 6 = 26
[[8,5,2][4,0,7][3,1,6]] - Already visited Node!
```

```
Node Chosen for Level 20 - [[8,1,2][0,5,4][7,3,6]]
Generated Nodes:
[[0,1,2][8,5,4][7,3,6]] - f(n) = 20 + 6 = 26
[[8,1,2][5,0,4][7,3,6]] - Already visited Node!
[[8,1,2][7,5,4][0,3,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[1,5,2][0,8,4][7,3,6]]
Generated Nodes:
[[0,5,2][1,8,4][7,3,6]] - Already visited Node!
[[1,5,2][8,0,4][7,3,6]] - f(n) = 20 + 6 = 26
[[1,5,2][7,8,4][0,3,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[5,2,0][7,3,6][4,8,1]]
Generated Nodes:
[[5,0,2][7,3,6][4,8,1]] - Already visited Node!
[[5,2,6][7,3,0][4,8,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,2,0][7,4,6][1,8,3]]
Generated Nodes:
[[5,0,2][7,4,6][1,8,3]] - Already visited Node!
[[5,2,6][7,4,0][1,8,3]] - f(n) = 21 + 6 = 27
Node Chosen for Level 20 - [[8,2,4][0,5,7][3,1,6]]
Generated Nodes:
[[0,2,4][8,5,7][3,1,6]] - f(n) = 20 + 6 = 26
[[8,2,4][5,0,7][3,1,6]] - Already visited Node!
[[8,2,4][3,5,7][0,1,6]] - f(n) = 20 + 6 = 26
Node Chosen for Level 21 - [[5,2,4][1,8,6][7,3,0]]
Generated Nodes:
[[5,2,4][1,8,0][7,3,6]] - Already visited Node!
[[5,2,4][1,8,6][7,0,3]] - f(n) = 21 + 5 = 26
Node Chosen for Level 21 - [[8,2,0][5,4,6][7,3,1]]
Generated Nodes:
[[8,0,2][5,4,6][7,3,1]] - Already visited Node!
[[8,2,6][5,4,0][7,3,1]] - f(n) = 21 + 6 = 27
```

```
Node Chosen for Level 21 - [[5,2,0][3,1,4][7,8,6]]
Generated Nodes:
[[5,0,2][3,1,4][7,8,6]] - Already visited Node!
[[5,2,4][3,1,0][7,8,6]] - f(n) = 21 + 5 = 26
Node Chosen for Level 21 - [[5,1,2][3,4,6][7,8,0]]
Generated Nodes:
[[5,1,2][3,4,0][7,8,6]] - Already visited Node!
[[5,1,2][3,4,6][7,0,8]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[3,2,4][5,7,6][1,8,0]]
Generated Nodes:
[[3,2,4][5,7,0][1,8,6]] - Already visited Node!
[[3,2,4][5,7,6][1,0,8]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[1,2,4][5,7,6][8,3,0]]
Generated Nodes:
[[1,2,4][5,7,0][8,3,6]] - Already visited Node!
[[1,2,4][5,7,6][8,0,3]] - f(n) = 21 + 5 = 26
Node Chosen for Level 21 - [[1,7,2][5,4,6][0,8,3]]
Generated Nodes:
[[1,7,2][0,4,6][5,8,3]] - f(n) = 21 + 5 = 26
[[1,7,2][5,4,6][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][4,1,6][3,8,0]]
Generated Nodes:
[[7,5,2][4,1,0][3,8,6]] - f(n) = 21 + 6 = 27
[[7,5,2][4,1,6][3,0,8]] - Already visited Node!
Node Chosen for Level 20 - [[1,7,2][0,5,3][8,6,4]]
Generated Nodes:
[[0,7,2][1,5,3][8,6,4]] - Already visited Node!
[[1,7,2][5,0,3][8,6,4]] - f(n) = 20 + 7 = 27
[[1,7,2][8,5,3][0,6,4]] - f(n) = 20 + 6 = 26
Node Chosen for Level 21 - [[3,7,5][4,2,6][1,8,0]]
```

```
Generated Nodes:
[[3,7,5][4,2,0][1,8,6]] - Already visited Node!
[[3,7,5][4,2,6][1,0,8]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[8,2,4][5,1,6][7,3,0]]
Generated Nodes:
[[8,2,4][5,1,0][7,3,6]] - Already visited Node!
[[8,2,4][5,1,6][7,0,3]] - f(n) = 21 + 5 = 26
Node Chosen for Level 21 - [[5,2,4][1,8,6][7,3,0]]
Generated Nodes:
[[5,2,4][1,8,0][7,3,6]] - Already visited Node!
[[5,2,4][1,8,6][7,0,3]] - f(n) = 21 + 5 = 26
Node Chosen for Level 22 - [[1,3,2][0,5,4][7,8,6]]
Generated Nodes:
[[0,3,2][1,5,4][7,8,6]] - f(n) = 22 + 5 = 27
[[1,3,2][5,0,4][7,8,6]] - Already visited Node!
[[1,3,2][7,5,4][0,8,6]] - f(n) = 22 + 5 = 27
Node Chosen for Level 21 - [[1,7,5][4,2,6][8,3,0]]
Generated Nodes:
[[1,7,5][4,2,0][8,3,6]] - Already visited Node!
[[1,7,5][4,2,6][8,0,3]] - f(n) = 21 + 5 = 26
Node Chosen for Level 21 - [[1,7,5][4,3,2][0,8,6]]
Generated Nodes:
[[1,7,5][0,3,2][4,8,6]] - f(n) = 21 + 6 = 27
[[1,7,5][4,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[1,0,2][5,4,6][7,8,3]]
Generated Nodes:
[[1,2,0][5,4,6][7,8,3]] - f(n) = 22 + 3 = 25
[[0,1,2][5,4,6][7,8,3]] - Already visited Node!
[[1,4,2][5,0,6][7,8,3]] - f(n) = 22 + 4 = 26
Node Chosen for Level 23 - [[1,2,4][5,3,6][7,8,0]]
```

Generated Nodes:

```
[[1,2,4][5,3,0][7,8,6]] - Already visited Node!
[[1,2,4][5,3,6][7,0,8]] - f(n) = 23 + 4 = 27
Node Chosen for Level 23 - [[5,2,0][4,1,6][7,8,3]]
Generated Nodes:
[[5,0,2][4,1,6][7,8,3]] - Already visited Node!
[[5,2,6][4,1,0][7,8,3]] - f(n) = 23 + 4 = 27
Node Chosen for Level 21 - [[7,2,0][4,5,3][8,1,6]]
Generated Nodes:
[[7,0,2][4,5,3][8,1,6]] - Already visited Node!
[[7,2,3][4,5,0][8,1,6]] - f(n) = 21 + 4 = 25
Node Chosen for Level 21 - [[7,2,0][4,5,1][8,6,3]]
Generated Nodes:
[[7,0,2][4,5,1][8,6,3]] - Already visited Node!
[[7,2,1][4,5,0][8,6,3]] - f(n) = 21 + 5 = 26
Node Chosen for Level 20 - [[7,0,8][4,5,2][3,1,6]]
Generated Nodes:
[[7,8,0][4,5,2][3,1,6]] - f(n) = 20 + 6 = 26
[[0,7,8][4,5,2][3,1,6]] - f(n) = 20 + 6 = 26
[[7,5,8][4,0,2][3,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,2,0][5,4,6][7,8,3]]
Generated Nodes:
[[1,0,2][5,4,6][7,8,3]] - Already visited Node!
[[1,2,6][5,4,0][7,8,3]] - f(n) = 23 + 4 = 27
Node Chosen for Level 22 - [[7,2,3][4,5,0][8,1,6]]
Generated Nodes:
[[7,2,0][4,5,3][8,1,6]] - Already visited Node!
[[7,2,3][4,0,5][8,1,6]] - f(n) = 22 + 5 = 27
[[7,2,3][4,5,6][8,1,0]] - f(n) = 22 + 3 = 25
Node Chosen for Level 23 - [[7,2,3][4,5,6][8,1,0]]
Generated Nodes:
```

```
[[7,2,3][4,5,0][8,1,6]] - Already visited Node!
[[7,2,3][4,5,6][8,0,1]] - f(n) = 23 + 3 = 26
Node Chosen for Level 20 - [[7,0,4][3,2,6][1,5,8]]
Generated Nodes:
[[7,4,0][3,2,6][1,5,8]] - f(n) = 20 + 7 = 27
[[0,7,4][3,2,6][1,5,8]] - f(n) = 20 + 7 = 27
[[7,2,4][3,0,6][1,5,8]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,4][3,6,0][1,5,8]]
Generated Nodes:
[[7,2,0][3,6,4][1,5,8]] - f(n) = 20 + 7 = 27
[[7,2,4][3,0,6][1,5,8]] - Already visited Node!
[[7,2,4][3,6,8][1,5,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,0,6][4,2,5][8,3,1]]
Generated Nodes:
[[7,6,0][4,2,5][8,3,1]] - f(n) = 20 + 7 = 27
[[0,7,6][4,2,5][8,3,1]] - f(n) = 20 + 7 = 27
[[7,2,6][4,0,5][8,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,6][0,4,5][8,3,1]]
Generated Nodes:
[[0,2,6][7,4,5][8,3,1]] - f(n) = 20 + 7 = 27
[[7,2,6][4,0,5][8,3,1]] - Already visited Node!
[[7,2,6][8,4,5][0,3,1]] - Already visited Node!
Node Chosen for Level 19 - [[3,7,2][1,0,4][8,5,6]]
Generated Nodes:
[[3,0,2][1,7,4][8,5,6]] - f(n) = 19 + 8 = 27
[[3,7,2][1,4,0][8,5,6]] - f(n) = 19 + 8 = 27
[[3,7,2][0,1,4][8,5,6]] - f(n) = 19 + 8 = 27
[[3,7,2][1,5,4][8,0,6]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,4][1,2,6][8,5,3]]
Generated Nodes:
[[7,4,0][1,2,6][8,5,3]] - f(n) = 20 + 7 = 27
[[0,7,4][1,2,6][8,5,3]] - f(n) = 20 + 7 = 27
[[7,2,4][1,0,6][8,5,3]] - Already visited Node!
```

```
Node Chosen for Level 20 - [[7,2,4][1,6,0][8,5,3]]
Generated Nodes:
[[7,2,0][1,6,4][8,5,3]] - f(n) = 20 + 7 = 27
[[7,2,4][1,0,6][8,5,3]] - Already visited Node!
[[7,2,4][1,6,3][8,5,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[7,2,6][3,0,5][4,8,1]]
Generated Nodes:
[[7,0,6][3,2,5][4,8,1]] - f(n) = 21 + 7 = 28
[[7,2,6][3,5,0][4,8,1]] - Already visited Node!
[[7,2,6][0,3,5][4,8,1]] - f(n) = 21 + 6 = 27
[[7,2,6][3,8,5][4,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 19 - [[0,1,2][5,7,4][8,3,6]]
Generated Nodes:
[[1,0,2][5,7,4][8,3,6]] - Already visited Node!
[[5,1,2][0,7,4][8,3,6]] - Already visited Node!
Node Chosen for Level 20 - [[5,4,6][7,2,0][3,8,1]]
Generated Nodes:
[[5,4,0][7,2,6][3,8,1]] - Already visited Node!
[[5,4,6][7,0,2][3,8,1]] - f(n) = 20 + 7 = 27
[[5,4,6][7,2,1][3,8,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,0,2][7,6,4][3,8,1]]
Generated Nodes:
[[5,2,0][7,6,4][3,8,1]] - Already visited Node!
[[0,5,2][7,6,4][3,8,1]] - f(n) = 20 + 7 = 27
[[5,6,2][7,0,4][3,8,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,4][7,6,1][3,0,8]]
Generated Nodes:
[[5,2,4][7,0,1][3,6,8]] - Already visited Node!
[[5,2,4][7,6,1][3,8,0]] - Already visited Node!
[[5,2,4][7,6,1][0,3,8]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[2,0,4][7,3,5][1,8,6]]
Generated Nodes:
```

```
[[2,4,0][7,3,5][1,8,6]] - f(n) = 20 + 7 = 27
[[0,2,4][7,3,5][1,8,6]] - Already visited Node!
[[2,3,4][7,0,5][1,8,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[7,2,4][5,0,6][3,1,8]]
Generated Nodes:
[[7,0,4][5,2,6][3,1,8]] - f(n) =
                                21 + 7 = 28
[[7,2,4][5,6,0][3,1,8]] - f(n) = 21 + 7 = 28
[[7,2,4][0,5,6][3,1,8]] - Already visited Node!
[[7,2,4][5,1,6][3,0,8]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,2,6][4,0,1][8,5,3]]
Generated Nodes:
[[7,0,6][4,2,1][8,5,3]] - f(n) = 21 + 7 = 28
[[7,2,6][4,1,0][8,5,3]] - f(n) = 21 + 6 = 27
[[7,2,6][0,4,1][8,5,3]] - f(n) = 21 + 7 = 28
[[7,2,6][4,5,1][8,0,3]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,2][3,5,0][4,1,6]]
Generated Nodes:
[[8,7,0][3,5,2][4,1,6]] - f(n) = 20 + 7 = 27
[[8,7,2][3,0,5][4,1,6]] - f(n) = 20 + 8 = 28
[[8,7,2][3,5,6][4,1,0]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,2][3,0,1][6,5,4]]
Generated Nodes:
[[8,0,2][3,7,1][6,5,4]] - f(n) = 19 + 8 = 27
[[8,7,2][3,1,0][6,5,4]] - f(n) = 19 + 8 = 27
[[8,7,2][0,3,1][6,5,4]] - f(n) = 19 + 8 = 27
[[8,7,2][3,5,1][6,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][1,3,4][0,7,6]]
Generated Nodes:
[[5,8,2][0,3,4][1,7,6]] - Already visited Node!
[[5,8,2][1,3,4][7,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[3,7,2][5,0,8][1,6,4]]
Generated Nodes:
[[3,0,2][5,7,8][1,6,4]] - f(n) = 19 + 8 = 27
[[3,7,2][5,8,0][1,6,4]] - f(n) = 19 + 8 = 27
```

```
[[3,7,2][0,5,8][1,6,4]] - Already visited Node!
[[3,7,2][5,6,8][1,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 20 - [[5,0,4][7,2,3][1,8,6]]
Generated Nodes:
[[5,4,0][7,2,3][1,8,6]] - f(n) =
                                  20 + 7 = 27
[[0,5,4][7,2,3][1,8,6]] - f(n) = 20 + 7 = 27
[[5,2,4][7,0,3][1,8,6]] - Already visited Node!
Node Chosen for Level 20 - [[5,2,4][7,8,3][1,0,6]]
Generated Nodes:
[[5,2,4][7,0,3][1,8,6]] - Already visited Node!
[[5,2,4][7,8,3][1,6,0]] - f(n) = 20 + 7 = 27
[[5,2,4][7,8,3][0,1,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[5,2,4][8,3,6][0,7,1]]
Generated Nodes:
[[5,2,4][0,3,6][8,7,1]] - f(n) = 21 + 6 = 27
[[5,2,4][8,3,6][7,0,1]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,5][4,6,0][3,2,1]]
Generated Nodes:
[[8,7,0][4,6,5][3,2,1]] - f(n) = 20 + 7 = 27
[[8,7,5][4,0,6][3,2,1]] - Already visited Node!
[[8,7,5][4,6,1][3,2,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[8,7,5][0,4,6][3,2,1]]
Generated Nodes:
[[0,7,5][8,4,6][3,2,1]] - Already visited Node!
[[8,7,5][4,0,6][3,2,1]] - Already visited Node!
[[8,7,5][3,4,6][0,2,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[8,7,5][0,2,6][4,3,1]]
Generated Nodes:
[[0,7,5][8,2,6][4,3,1]] - f(n) = 20 + 7 = 27
[[8,7,5][2,0,6][4,3,1]] - f(n) = 20 + 7 = 27
[[8,7,5][4,2,6][0,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[5,0,4][7,2,6][8,1,3]]
```

```
Generated Nodes:
[[5,4,0][7,2,6][8,1,3]] - f(n) = 20 + 7 = 27
[[0,5,4][7,2,6][8,1,3]] - f(n) = 20 + 7 = 27
[[5,2,4][7,0,6][8,1,3]] - Already visited Node!
Node Chosen for Level 20 - [[5,2,4][7,6,0][8,1,3]]
```

Generated Nodes:

```
[[5,2,0][7,6,4][8,1,3]] - f(n) = 20 + 7 = 27
[[5,2,4][7,0,6][8,1,3]] - Already visited Node!
[[5,2,4][7,6,3][8,1,0]] - f(n) = 20 + 7 = 27
```

Node Chosen for Level 22 - [[2,0,4][7,5,6][1,8,3]]

Generated Nodes:

```
[[2,4,0][7,5,6][1,8,3]] - f(n) = 22 + 5 = 27
[[0,2,4][7,5,6][1,8,3]] - Already visited Node!
[[2,5,4][7,0,6][1,8,3]] - f(n) = 22 + 6 = 28
```

Node Chosen for Level 21 - [[3,7,2][5,0,6][4,8,1]]

Generated Nodes:

```
[[3,0,2][5,7,6][4,8,1]] - f(n) = 21 + 6 = 27
[[3,7,2][5,6,0][4,8,1]] - f(n) = 21 + 7 = 28
[[3,7,2][0,5,6][4,8,1]] - Already visited Node!
[[3,7,2][5,8,6][4,0,1]] - f(n) = 21 + 7 = 28
```

Node Chosen for Level 20 - [[2,0,4][5,1,8][7,3,6]]

Generated Nodes:

```
[[2,4,0][5,1,8][7,3,6]] - f(n) = 20 + 7 = 27
[[0,2,4][5,1,8][7,3,6]] - Already visited Node!
[[2,1,4][5,0,8][7,3,6]] - f(n) = 20 + 7 = 27
```

Node Chosen for Level 20 - [[5,0,4][1,2,8][7,3,6]]

Generated Nodes:

```
[[5,4,0][1,2,8][7,3,6]] - f(n) = 20 + 7 = 27
[[0,5,4][1,2,8][7,3,6]] - f(n) = 20 + 7 = 27
[[5,2,4][1,0,8][7,3,6]] - Already visited Node!
```

Node Chosen for Level 20 - [[5,1,2][3,8,4][7,0,6]]

Generated Nodes:

[[5,1,2][3,0,4][7,8,6]] - Already visited Node!

```
[[5,1,2][3,8,4][7,6,0]] - f(n) = 20 + 7 = 27
[[5,1,2][3,8,4][0,7,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 21 - [[5,8,2][4,3,6][0,7,1]]
Generated Nodes:
[[5,8,2][0,3,6][4,7,1]] - f(n) = 21 + 7 = 28
[[5,8,2][4,3,6][7,0,1]] - Already visited Node!
Node Chosen for Level 22 - [[2,0,4][5,1,6][7,8,3]]
Generated Nodes:
[[2,4,0][5,1,6][7,8,3]] - f(n) = 22 + 5 = 27
[[0,2,4][5,1,6][7,8,3]] - Already visited Node!
[[2,1,4][5,0,6][7,8,3]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[5,0,4][1,2,6][7,8,3]]
Generated Nodes:
[[5,4,0][1,2,6][7,8,3]] - f(n) = 22 + 5 = 27
[[0,5,4][1,2,6][7,8,3]] - f(n) = 22 + 5 = 27
[[5,2,4][1,0,6][7,8,3]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,4][1,6,0][7,8,3]]
Generated Nodes:
[[5,2,0][1,6,4][7,8,3]] - f(n) = 22 + 5 = 27
[[5,2,4][1,0,6][7,8,3]] - Already visited Node!
[[5,2,4][1,6,3][7,8,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[5,2,4][1,8,6][7,0,3]]
Generated Nodes:
[[5,2,4][1,0,6][7,8,3]] - Already visited Node!
[[5,2,4][1,8,6][7,3,0]] - Already visited Node!
[[5,2,4][1,8,6][0,7,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[4,7,2][0,5,6][1,8,3]]
Generated Nodes:
[[0,7,2][4,5,6][1,8,3]] - Already visited Node!
[[4,7,2][5,0,6][1,8,3]] - f(n) = 22 + 6 = 28
[[4,7,2][1,5,6][0,8,3]] - f(n) = 22 + 5 = 27
Node Chosen for Level 21 - [[7,2,1][3,0,5][6,8,4]]
```

```
Generated Nodes:
[[7,0,1][3,2,5][6,8,4]] - f(n) = 21 + 7 = 28
[[7,2,1][3,5,0][6,8,4]] - Already visited Node!
[[7,2,1][0,3,5][6,8,4]] - f(n) = 21 + 6 = 27
[[7,2,1][3,8,5][6,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 20 - [[8,2,6][5,7,0][3,4,1]]
Generated Nodes:
[[8,2,0][5,7,6][3,4,1]] - Already visited Node!
[[8,2,6][5,0,7][3,4,1]] - f(n) = 20 + 7 = 27
[[8,2,6][5,7,1][3,4,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[3,7,2][5,4,6][1,0,8]]
Generated Nodes:
[[3,7,2][5,0,6][1,4,8]] - f(n) = 20 + 7 = 27
[[3,7,2][5,4,6][1,8,0]] - Already visited Node!
[[3,7,2][5,4,6][0,1,8]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,5,2][0,6,1][4,8,3]]
Generated Nodes:
[[0,5,2][7,6,1][4,8,3]] - f(n) = 20 + 7 = 27
[[7,5,2][6,0,1][4,8,3]] - f(n) = 20 + 7 = 27
[[7,5,2][4,6,1][0,8,3]] - Already visited Node!
Node Chosen for Level 20 - [[7,5,2][4,6,0][3,1,8]]
Generated Nodes:
[[7,5,0][4,6,2][3,1,8]] - f(n) = 20 + 7 = 27
[[7,5,2][4,0,6][3,1,8]] - Already visited Node!
[[7,5,2][4,6,8][3,1,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 22 - [[7,2,6][0,5,1][4,8,3]]
Generated Nodes:
[[0,2,6][7,5,1][4,8,3]] - f(n) = 22 + 5 = 27
[[7,2,6][5,0,1][4,8,3]] - f(n) = 22 + 6 = 28
[[7,2,6][4,5,1][0,8,3]] - Already visited Node!
Node Chosen for Level 20 - [[3,7,5][4,8,2][1,0,6]]
Generated Nodes:
```

[[3,7,5][4,0,2][1,8,6]] - Already visited Node!

```
[[3,7,5][4,8,2][1,6,0]] - f(n) = 20 + 7 = 27
[[3,7,5][4,8,2][0,1,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,4,5][3,2,6][1,0,8]]
Generated Nodes:
[[7,4,5][3,0,6][1,2,8]] - f(n) = 20 + 7 = 27
[[7,4,5][3,2,6][1,8,0]] - Already visited Node!
[[7,4,5][3,2,6][0,1,8]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,3,2][7,4,6][1,0,8]]
Generated Nodes:
[[5,3,2][7,0,6][1,4,8]] - f(n) = 20 + 7 = 27
[[5,3,2][7,4,6][1,8,0]] - Already visited Node!
[[5,3,2][7,4,6][0,1,8]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[8,2,7][0,4,5][3,1,6]]
Generated Nodes:
[[0,2,7][8,4,5][3,1,6]] - f(n) = 20 + 7 = 27
[[8,2,7][4,0,5][3,1,6]] - Already visited Node!
[[8,2,7][3,4,5][0,1,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 22 - [[3,7,2][4,5,6][8,0,1]]
Generated Nodes:
[[3,7,2][4,0,6][8,5,1]] - f(n) = 22 + 6 = 28
[[3,7,2][4,5,6][8,1,0]] - f(n) = 22 + 5 = 27
[[3,7,2][4,5,6][0,8,1]] - Already visited Node!
Node Chosen for Level 20 - [[7,4,5][3,2,6][1,0,8]]
Generated Nodes:
[[7,4,5][3,0,6][1,2,8]] - f(n) = 20 + 7 = 27
[[7,4,5][3,2,6][1,8,0]] - Already visited Node!
[[7,4,5][3,2,6][0,1,8]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[1,7,2][5,0,6][8,4,3]]
Generated Nodes:
[[1,0,2][5,7,6][8,4,3]] - f(n) = 21 + 6 = 27
[[1,7,2][5,6,0][8,4,3]] - f(n) = 21 + 7 = 28
[[1,7,2][0,5,6][8,4,3]] - Already visited Node!
[[1,7,2][5,4,6][8,0,3]] - Already visited Node!
```

```
Node Chosen for Level 22 - [[5,2,6][4,8,0][7,3,1]]
Generated Nodes:
[[5,2,0][4,8,6][7,3,1]] - Already visited Node!
[[5,2,6][4,0,8][7,3,1]] - f(n) = 22 + 5 = 27
[[5,2,6][4,8,1][7,3,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[7,2,6][4,5,0][3,1,8]]
Generated Nodes:
[[7,2,0][4,5,6][3,1,8]] - Already visited Node!
[[7,2,6][4,0,5][3,1,8]] - f(n) = 22 + 6 = 28
[[7,2,6][4,5,8][3,1,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 21 - [[7,2,3][1,0,5][8,6,4]]
Generated Nodes:
[[7,0,3][1,2,5][8,6,4]] - f(n) = 21 + 7 = 28
[[7,2,3][1,5,0][8,6,4]] - Already visited Node! [[7,2,3][0,1,5][8,6,4]] - f(n) = 21 + 6 = 27
[[7,2,3][1,6,5][8,0,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 22 - [[5,1,2][4,6,0][7,8,3]]
Generated Nodes:
[[5,1,0][4,6,2][7,8,3]] - f(n) = 22 + 5 = 27
[[5,1,2][4,0,6][7,8,3]] - Already visited Node!
[[5,1,2][4,6,3][7,8,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[5,1,2][4,8,6][7,0,3]]
Generated Nodes:
[[5,1,2][4,0,6][7,8,3]] - Already visited Node!
[[5,1,2][4,8,6][7,3,0]] - f(n) = 22 + 5 = 27
[[5,1,2][4,8,6][0,7,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 19 - [[7,6,0][8,2,5][3,4,1]]
Generated Nodes:
[[7,0,6][8,2,5][3,4,1]] - Already visited Node!
[[7,6,5][8,2,0][3,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[0,7,6][8,2,5][3,4,1]]
Generated Nodes:
```

```
[[7,0,6][8,2,5][3,4,1]] - Already visited Node!
[[8,7,6][0,2,5][3,4,1]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[8,7,0][5,6,2][3,4,1]]
Generated Nodes:
[[8,0,7][5,6,2][3,4,1]] - f(n) = 19 + 8 = 27
[[8,7,2][5,6,0][3,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,2][5,6,1][3,4,0]]
Generated Nodes:
[[8,7,2][5,6,0][3,4,1]] - Already visited Node!
[[8,7,2][5,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[3,7,2][5,8,4][1,6,0]]
Generated Nodes:
[[3,7,2][5,8,0][1,6,4]] - f(n) = 19 + 8 = 27
[[3,7,2][5,8,4][1,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[3,7,2][5,8,4][0,1,6]]
Generated Nodes:
[[3,7,2][0,8,4][5,1,6]] - f(n) = 19 + 8 = 27
[[3,7,2][5,8,4][1,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,7,1][8,2,5][3,6,4]]
Generated Nodes:
[[7,0,1][8,2,5][3,6,4]] - Already visited Node!
[[8,7,1][0,2,5][3,6,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,4,0][1,2,5][8,3,6]]
Generated Nodes:
[[7,0,4][1,2,5][8,3,6]] - Already visited Node!
[[7,4,5][1,2,0][8,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,7,4][1,2,5][8,3,6]]
Generated Nodes:
[[7,0,4][1,2,5][8,3,6]] - Already visited Node!
[[1,7,4][0,2,5][8,3,6]] - f(n) = 19 + 7 = 26
```

```
Node Chosen for Level 20 - [[4,0,2][5,7,6][8,3,1]]
Generated Nodes:
[[4,2,0][5,7,6][8,3,1]] - f(n) = 20 + 6 = 26
[[0,4,2][5,7,6][8,3,1]] - Already visited Node!
[[4,7,2][5,0,6][8,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[4,7,2][5,3,6][8,0,1]]
Generated Nodes:
[[4,7,2][5,0,6][8,3,1]] - Already visited Node!
[[4,7,2][5,3,6][8,1,0]] - f(n) = 20 + 7 = 27
[[4,7,2][5,3,6][0,8,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 19 - [[7,5,0][3,6,2][1,4,8]]
Generated Nodes:
[[7,0,5][3,6,2][1,4,8]] - f(n) = 19 + 8 = 27
[[7,5,2][3,6,0][1,4,8]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,6][8,1,0][3,5,4]]
Generated Nodes:
[[7,2,0][8,1,6][3,5,4]] - f(n) = 20 + 6 = 26
[[7,2,6][8,0,1][3,5,4]] - Already visited Node!
[[7,2,6][8,1,4][3,5,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,2,6][0,8,1][3,5,4]]
Generated Nodes:
[[0,2,6][7,8,1][3,5,4]] - f(n) = 20 + 7 = 27
[[7,2,6][8,0,1][3,5,4]] - Already visited Node!
[[7,2,6][3,8,1][0,5,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 19 - [[5,8,0][7,6,2][3,4,1]]
Generated Nodes:
[[5,0,8][7,6,2][3,4,1]] - f(n) = 19 + 8 = 27
[[5,8,2][7,6,0][3,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][7,6,1][3,4,0]]
Generated Nodes:
[[5,8,2][7,6,0][3,4,1]] - Already visited Node!
[[5,8,2][7,6,1][3,0,4]] - Already visited Node!
```

```
Node Chosen for Level 19 - [[7,5,0][3,8,2][4,1,6]]
Generated Nodes:
[[7,0,5][3,8,2][4,1,6]] - f(n) = 19 + 8 = 27
[[7,5,2][3,8,0][4,1,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][3,0,8][4,1,6]]
Generated Nodes:
[[7,0,2][3,5,8][4,1,6]] - f(n) = 19 + 7 = 26
[[7,5,2][3,8,0][4,1,6]] - Already visited Node!
[[7,5,2][0,3,8][4,1,6]] - f(n) = 19 + 8 = 27
[[7,5,2][3,1,8][4,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[5,4,0][7,6,2][8,3,1]]
Generated Nodes:
[[5,0,4][7,6,2][8,3,1]] - f(n) = 19 + 8 = 27
[[5,4,2][7,6,0][8,3,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,4,2][7,6,1][8,3,0]]
Generated Nodes:
[[5,4,2][7,6,0][8,3,1]] - Already visited Node!
[[5,4,2][7,6,1][8,0,3]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[2,4,0][5,7,8][3,1,6]]
Generated Nodes:
[[2,0,4][5,7,8][3,1,6]] - Already visited Node!
[[2,4,8][5,7,0][3,1,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[2,7,4][5,0,8][3,1,6]]
Generated Nodes:
[[2,0,4][5,7,8][3,1,6]] - Already visited Node!
[[2,7,4][5,8,0][3,1,6]] - f(n) = 19 + 8 = 27
[[2,7,4][0,5,8][3,1,6]] - f(n) =
                                19 + 7 = 26
[[2,7,4][5,1,8][3,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[5,3,2][7,8,4][1,6,0]]
Generated Nodes:
[[5,3,2][7,8,0][1,6,4]] - f(n) = 19 + 8 = 27
```

```
[[5,3,2][7,8,4][1,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,3,2][7,8,4][0,1,6]]
Generated Nodes:
[[5,3,2][0,8,4][7,1,6]] - f(n) = 19 + 7 = 26
[[5,3,2][7,8,4][1,0,6]] - Already visited Node!
Node Chosen for Level 20 - [[8,0,2][3,7,6][4,5,1]]
Generated Nodes:
[[8,2,0][3,7,6][4,5,1]] - f(n) = 20 + 6 = 26
[[0,8,2][3,7,6][4,5,1]] - f(n) = 20 + 7 = 27
[[8,7,2][3,0,6][4,5,1]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,2][0,3,6][4,5,1]]
Generated Nodes:
[[0,7,2][8,3,6][4,5,1]] - f(n) = 20 + 7 = 27
[[8,7,2][3,0,6][4,5,1]] - Already visited Node!
[[8,7,2][4,3,6][0,5,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,2,1][8,4,0][3,5,6]]
Generated Nodes:
[[7,2,0][8,4,1][3,5,6]] - f(n) = 20 + 7 = 27
[[7,2,1][8,0,4][3,5,6]] - Already visited Node!
[[7,2,1][8,4,6][3,5,0]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,2,1][0,8,4][3,5,6]]
Generated Nodes:
[[0,2,1][7,8,4][3,5,6]] - f(n) = 20 + 7 = 27
[[7,2,1][8,0,4][3,5,6]] - Already visited Node!
[[7,2,1][3,8,4][0,5,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 19 - [[4,8,5][3,7,2][0,1,6]]
Generated Nodes:
[[4,8,5][0,7,2][3,1,6]] - Already visited Node!
[[4,8,5][3,7,2][1,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,7,5][8,1,2][4,3,6]]
Generated Nodes:
```

```
[[7,0,5][8,1,2][4,3,6]] - f(n) = 19 + 8 = 27
[[8,7,5][0,1,2][4,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,5][1,0,2][4,3,6]]
Generated Nodes:
[[8,0,5][1,7,2][4,3,6]] - f(n) = 19 + 8 = 27
[[8,7,5][1,2,0][4,3,6]] - f(n) = 19 + 8 = 27
[[8,7,5][0,1,2][4,3,6]] - Already visited Node!
[[8,7,5][1,3,2][4,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,4,0][8,6,5][3,2,1]]
Generated Nodes:
[[7,0,4][8,6,5][3,2,1]] - f(n) = 19 + 8 = 27
[[7,4,5][8,6,0][3,2,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][8,6,1][3,2,0]]
Generated Nodes:
[[7,4,5][8,6,0][3,2,1]] - Already visited Node!
[[7,4,5][8,6,1][3,0,2]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,0][7,6,2][3,4,1]]
Generated Nodes:
[[5,0,8][7,6,2][3,4,1]] - f(n) = 19 + 8 = 27
[[5,8,2][7,6,0][3,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][7,6,1][3,4,0]]
Generated Nodes:
[[5,8,2][7,6,0][3,4,1]] - Already visited Node!
[[5,8,2][7,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,4,0][7,2,1][8,3,6]]
Generated Nodes:
[[5,0,4][7,2,1][8,3,6]] - Already visited Node!
[[5,4,1][7,2,0][8,3,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,5,4][7,2,1][8,3,6]]
Generated Nodes:
[[5,0,4][7,2,1][8,3,6]] - Already visited Node!
```

```
[[7,5,4][0,2,1][8,3,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,5,0][1,6,2][8,4,3]]
Generated Nodes:
[[7,0,5][1,6,2][8,4,3]] - f(n) = 19 + 8 = 27
[[7,5,2][1,6,0][8,4,3]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][1,6,3][8,4,0]]
Generated Nodes:
[[7,5,2][1,6,0][8,4,3]] - Already visited Node!
[[7,5,2][1,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 20 - [[1,0,2][8,7,4][3,5,6]]
Generated Nodes:
[[1,2,0][8,7,4][3,5,6]] - f(n) = 20 + 6 = 26
[[0,1,2][8,7,4][3,5,6]] - f(n) = 20 + 8 = 28
[[1,7,2][8,0,4][3,5,6]] - Already visited Node!
Node Chosen for Level 20 - [[1,7,2][8,4,0][3,5,6]]
Generated Nodes:
[[1,7,0][8,4,2][3,5,6]] - f(n) = 20 + 7 = 27
[[1,7,2][8,0,4][3,5,6]] - Already visited Node!
[[1,7,2][8,4,6][3,5,0]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[1,7,2][0,8,4][3,5,6]]
Generated Nodes:
[[0,7,2][1,8,4][3,5,6]] - f(n) = 20 + 8 = 28
[[1,7,2][8,0,4][3,5,6]] - Already visited Node!
[[1,7,2][3,8,4][0,5,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[2,4,0][5,7,6][3,8,1]]
Generated Nodes:
[[2,0,4][5,7,6][3,8,1]] - Already visited Node!
[[2,4,6][5,7,0][3,8,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[2,7,4][5,0,6][3,8,1]]
Generated Nodes:
[[2,0,4][5,7,6][3,8,1]] - Already visited Node!
```

```
[[2,7,4][5,6,0][3,8,1]] - f(n) = 21 + 7 = 28
[[2,7,4][0,5,6][3,8,1]] - f(n) =
                                  21 + 5 = 26
[[2,7,4][5,8,6][3,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,4][3,0,6][8,7,1]]
Generated Nodes:
[[5,0,4][3,2,6][8,7,1]] - f(n) =
                                  21 + 7 = 28
                                  21 + 7 = 28
[[5,2,4][3,6,0][8,7,1]] - f(n) =
[[5,2,4][0,3,6][8,7,1]] - f(n) = 21 + 6 = 27
[[5,2,4][3,7,6][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][3,7,6][8,1,0]]
Generated Nodes:
[[5,2,4][3,7,0][8,1,6]] - f(n) = 21 + 7 = 28
[[5,2,4][3,7,6][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[2,4,0][5,8,6][7,3,1]]
Generated Nodes:
[[2,0,4][5,8,6][7,3,1]] - Already visited Node!
[[2,4,6][5,8,0][7,3,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[2,8,4][5,0,6][7,3,1]]
Generated Nodes:
[[2,0,4][5,8,6][7,3,1]] - Already visited Node!
[[2,8,4][5,6,0][7,3,1]] - f(n) = 21 + 7 = 28
[[2,8,4][0,5,6][7,3,1]] - f(n) =
                                 21 + 5 = 26
[[2,8,4][5,3,6][7,0,1]] - f(n) =
                                  21 + 6 = 27
Node Chosen for Level 21 - [[5,4,0][8,2,6][7,3,1]]
Generated Nodes:
[[5,0,4][8,2,6][7,3,1]] - Already visited Node!
[[5,4,6][8,2,0][7,3,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,5,4][8,2,6][7,3,1]]
Generated Nodes:
[[5,0,4][8,2,6][7,3,1]] - Already visited Node!
[[8,5,4][0,2,6][7,3,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,2,0][8,6,4][7,3,1]]
```

```
Generated Nodes:
[[5,0,2][8,6,4][7,3,1]] - f(n) = 21 + 7 = 28
[[5,2,4][8,6,0][7,3,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][8,6,1][7,3,0]]
Generated Nodes:
[[5,2,4][8,6,0][7,3,1]] - Already visited Node!
[[5,2,4][8,6,1][7,0,3]] - f(n) = 21 + 6 = 27
Node Chosen for Level 20 - [[7,2,8][0,3,5][1,6,4]]
Generated Nodes:
[[0,2,8][7,3,5][1,6,4]] - f(n) = 20 + 7 = 27
[[7,2,8][3,0,5][1,6,4]] - Already visited Node!
[[7,2,8][1,3,5][0,6,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,2,8][3,6,5][1,0,4]]
Generated Nodes:
[[7,2,8][3,0,5][1,6,4]] - Already visited Node!
[[7,2,8][3,6,5][1,4,0]] - f(n) = 20 + 7 = 27
[[7,2,8][3,6,5][0,1,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[5,2,4][7,0,6][1,3,8]]
Generated Nodes:
[[5,0,4][7,2,6][1,3,8]] - f(n) = 21 + 7 = 28
[[5,2,4][7,6,0][1,3,8]] - f(n) = 21 + 7 = 28
[[5,2,4][0,7,6][1,3,8]] - f(n) = 21 + 6 = 27
[[5,2,4][7,3,6][1,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][7,3,6][0,1,8]]
Generated Nodes:
[[5,2,4][0,3,6][7,1,8]] - f(n) = 21 + 5 = 26
[[5,2,4][7,3,6][1,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,0][4,6,2][1,8,3]]
Generated Nodes:
[[7,0,5][4,6,2][1,8,3]] - f(n) = 21 + 6 = 27
[[7,5,2][4,6,0][1,8,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][4,6,3][1,8,0]]
```

```
Generated Nodes:
[[7,5,2][4,6,0][1,8,3]] - Already visited Node!
[[7,5,2][4,6,3][1,0,8]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,5,2][4,8,6][1,3,0]]
Generated Nodes:
[[7,5,2][4,8,0][1,3,6]] - f(n) = 21 + 7 = 28
[[7,5,2][4,8,6][1,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][4,8,6][0,1,3]]
Generated Nodes:
[[7,5,2][0,8,6][4,1,3]] - f(n) = 21 + 7 = 28
[[7,5,2][4,8,6][1,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,6][3,5,8][1,4,0]]
Generated Nodes:
[[7,2,6][3,5,0][1,4,8]] - Already visited Node!
[[7,2,6][3,5,8][1,0,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,8,0][4,6,2][7,3,1]]
Generated Nodes:
[[5,0,8][4,6,2][7,3,1]] - f(n) = 21 + 6 = 27
[[5,8,2][4,6,0][7,3,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][4,6,1][7,3,0]]
Generated Nodes:
[[5,8,2][4,6,0][7,3,1]] - Already visited Node!
[[5,8,2][4,6,1][7,0,3]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,2,6][1,5,3][8,4,0]]
Generated Nodes:
[[7,2,6][1,5,0][8,4,3]] - Already visited Node!
[[7,2,6][1,5,3][8,0,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 23 - [[7,2,6][4,5,3][1,8,0]]
Generated Nodes:
```

```
[[7,2,6][4,5,0][1,8,3]] - Already visited Node!
[[7,2,6][4,5,3][1,0,8]] - f(n) = 23 + 5 = 28
Node Chosen for Level 20 - [[3,7,4][0,2,5][1,8,6]]
Generated Nodes:
[[0,7,4][3,2,5][1,8,6]] - Already visited Node!
[[3,7,4][2,0,5][1,8,6]] - f(n) = 20 + 7 = 27
[[3,7,4][1,2,5][0,8,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,2,4][3,8,0][1,6,5]]
Generated Nodes:
[[7,2,0][3,8,4][1,6,5]] - f(n) = 20 + 7 = 27
[[7,2,4][3,0,8][1,6,5]] - f(n) = 20 + 7 = 27
[[7,2,4][3,8,5][1,6,0]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,4][0,8,5][3,1,6]]
Generated Nodes:
[[0,2,4][7,8,5][3,1,6]] - f(n) = 20 + 7 = 27
[[7,2,4][8,0,5][3,1,6]] - Already visited Node!
[[7,2,4][3,8,5][0,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,4][7,3,6][1,5,8]]
Generated Nodes:
[[2,0,4][7,3,6][1,5,8]] - f(n) = 21 + 7 = 28
[[7,2,4][0,3,6][1,5,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,4][1,3,6][0,5,8]]
Generated Nodes:
[[7,2,4][0,3,6][1,5,8]] - Already visited Node!
[[7,2,4][1,3,6][5,0,8]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,2,6][4,3,5][8,1,0]]
Generated Nodes:
[[7,2,6][4,3,0][8,1,5]] - f(n) = 21 + 6 = 27
[[7,2,6][4,3,5][8,0,1]] - Already visited Node!
Node Chosen for Level 20 - [[3,7,2][1,5,0][8,6,4]]
Generated Nodes:
```

```
[[3,7,0][1,5,2][8,6,4]] - f(n) = 20 + 7 = 27
[[3,7,2][1,0,5][8,6,4]] - f(n) = 20 + 8 = 28
[[3,7,2][1,5,4][8,6,0]] - Already visited Node!
Node Chosen for Level 19 - [[0,8,2][5,7,1][3,6,4]]
Generated Nodes:
[[8,0,2][5,7,1][3,6,4]] - Already visited Node!
[[5,8,2][0,7,1][3,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,0][5,1,2][3,6,4]]
Generated Nodes:
[[8,0,7][5,1,2][3,6,4]] - f(n) = 19 + 8 = 27
[[8,7,2][5,1,0][3,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,2][5,1,4][3,6,0]]
Generated Nodes:
[[8,7,2][5,1,0][3,6,4]] - Already visited Node!
[[8,7,2][5,1,4][3,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,2][5,6,1][3,4,0]]
Generated Nodes:
[[8,7,2][5,6,0][3,4,1]] - Already visited Node!
[[8,7,2][5,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,2][5,6,1][0,3,4]]
Generated Nodes:
[[8,7,2][0,6,1][5,3,4]] - f(n) = 19 + 8 = 27
[[8,7,2][5,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,5][4,3,2][8,1,6]]
Generated Nodes:
[[7,5,0][4,3,2][8,1,6]] - Already visited Node!
[[0,7,5][4,3,2][8,1,6]] - f(n) = 20 + 7 = 27
[[7,3,5][4,0,2][8,1,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,5,2][4,1,3][8,0,6]]
Generated Nodes:
[[7,5,2][4,0,3][8,1,6]] - Already visited Node!
```

```
[[7,5,2][4,1,3][8,6,0]] - f(n) = 20 + 7 = 27
[[7,5,2][4,1,3][0,8,6]] - f(n) = 20 + 6 = 26
Node Chosen for Level 21 - [[0,2,4][7,1,6][8,5,3]]
Generated Nodes:
[[2,0,4][7,1,6][8,5,3]] - f(n) = 21 + 7 = 28
[[7,2,4][0,1,6][8,5,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,4][8,1,6][0,5,3]]
Generated Nodes:
[[7,2,4][0,1,6][8,5,3]] - Already visited Node!
[[7,2,4][8,1,6][5,0,3]] - f(n) = 21 + 6 = 27
Node Chosen for Level 20 - [[5,2,6][0,7,8][3,4,1]]
Generated Nodes:
[[0,2,6][5,7,8][3,4,1]] - f(n) = 20 + 7 = 27
[[5,2,6][7,0,8][3,4,1]] - Already visited Node!
[[5,2,6][3,7,8][0,4,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,6][7,4,8][3,0,1]]
Generated Nodes:
[[5,2,6][7,0,8][3,4,1]] - Already visited Node!
[[5,2,6][7,4,8][3,1,0]] - f(n) = 20 + 7 = 27
[[5,2,6][7,4,8][0,3,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,6][7,8,1][3,0,4]]
Generated Nodes:
[[5,2,6][7,0,1][3,8,4]] - f(n) = 20 + 6 = 26
[[5,2,6][7,8,1][3,4,0]] - Already visited Node!
[[5,2,6][7,8,1][0,3,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,0,5][3,6,2][4,8,1]]
Generated Nodes:
[[7,5,0][3,6,2][4,8,1]] - Already visited Node!
[[0,7,5][3,6,2][4,8,1]] - f(n) = 20 + 7 = 27
[[7,6,5][3,0,2][4,8,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,6][0,7,4][8,3,1]]
Generated Nodes:
```

```
[[0,2,6][5,7,4][8,3,1]] - f(n) = 20 + 7 = 27
[[5,2,6][7,0,4][8,3,1]] - Already visited Node!
[[5,2,6][8,7,4][0,3,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,6][7,3,4][8,0,1]]
Generated Nodes:
[[5,2,6][7,0,4][8,3,1]] - Already visited Node!
[[5,2,6][7,3,4][8,1,0]] - f(n) = 20 + 7 = 27
[[5,2,6][7,3,4][0,8,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[5,2,6][7,4,1][8,0,3]]
Generated Nodes:
[[5,2,6][7,0,1][8,4,3]] - f(n) = 20 + 7 = 27
[[5,2,6][7,4,1][8,3,0]] - Already visited Node!
[[5,2,6][7,4,1][0,8,3]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,2,6][3,8,5][4,0,1]]
Generated Nodes:
[[7,2,6][3,0,5][4,8,1]] - Already visited Node!
[[7,2,6][3,8,5][4,1,0]] - f(n) = 20 + 7 = 27
[[7,2,6][3,8,5][0,4,1]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,6][8,4,0][3,1,5]]
Generated Nodes:
[[7,2,0][8,4,6][3,1,5]] - f(n) = 20 + 6 = 26
[[7,2,6][8,0,4][3,1,5]] - f(n) = 20 + 7 = 27
[[7,2,6][8,4,5][3,1,0]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,6][0,4,5][8,3,1]]
Generated Nodes:
[[0,2,6][7,4,5][8,3,1]] - f(n) = 20 + 7 = 27
[[7,2,6][4,0,5][8,3,1]] - Already visited Node!
[[7,2,6][8,4,5][0,3,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,4][2,0,8][3,1,6]]
Generated Nodes:
[[7,0,4][2,5,8][3,1,6]] - f(n) = 19 + 7 = 26
[[7,5,4][2,8,0][3,1,6]] - f(n) = 19 + 8 = 27
[[7,5,4][0,2,8][3,1,6]] - Already visited Node!
```

```
[[7,5,4][2,1,8][3,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,5,4][3,2,8][0,1,6]]
Generated Nodes:
[[7,5,4][0,2,8][3,1,6]] - Already visited Node!
[[7,5,4][3,2,8][1,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 20 - [[8,7,2][0,4,6][5,3,1]]
Generated Nodes:
[[0,7,2][8,4,6][5,3,1]] - f(n) = 20 + 7 = 27
[[8,7,2][4,0,6][5,3,1]] - f(n) = 20 + 6 = 26
[[8,7,2][5,4,6][0,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[3,0,7][5,4,2][1,8,6]]
Generated Nodes:
[[3,7,0][5,4,2][1,8,6]] - Already visited Node!
[[0,3,7][5,4,2][1,8,6]] - f(n) = 20 + 7 = 27
[[3,4,7][5,0,2][1,8,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,2,1][3,8,5][6,0,4]]
Generated Nodes:
[[7,2,1][3,0,5][6,8,4]] - Already visited Node!
[[7,2,1][3,8,5][6,4,0]] - f(n) = 20 + 7 = 27
[[7,2,1][3,8,5][0,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,1][8,6,0][3,4,5]]
Generated Nodes:
[[7,2,0][8,6,1][3,4,5]] - f(n) = 20 + 7 = 27
[[7,2,1][8,0,6][3,4,5]] - f(n) = 20 + 6 = 26
[[7,2,1][8,6,5][3,4,0]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,1][0,6,5][8,3,4]]
Generated Nodes:
[[0,2,1][7,6,5][8,3,4]] - f(n) = 20 + 7 = 27
[[7,2,1][6,0,5][8,3,4]] - f(n) = 20 + 7 = 27
[[7,2,1][8,6,5][0,3,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,4][8,1,5][3,0,6]]
Generated Nodes:
```

```
[[7,2,4][8,0,5][3,1,6]] - Already visited Node!
[[7,2,4][8,1,5][3,6,0]] - f(n) = 20 + 7 = 27
[[7,2,4][8,1,5][0,3,6]] - Already visited Node!
Node Chosen for Level 20 - [[7,2,4][1,3,0][8,6,5]]
Generated Nodes:
[[7,2,0][1,3,4][8,6,5]] - f(n) = 20 + 7 = 27
[[7,2,4][1,0,3][8,6,5]] - f(n) = 20 + 7 = 27
[[7,2,4][1,3,5][8,6,0]] - Already visited Node!
Node Chosen for Level 21 - [[4,7,2][8,5,6][3,1,0]]
Generated Nodes:
[[4,7,2][8,5,0][3,1,6]] - f(n) = 21 + 7 = 28
[[4,7,2][8,5,6][3,0,1]] - Already visited Node!
Node Chosen for Level 20 - [[1,0,7][5,4,2][8,3,6]]
Generated Nodes:
[[1,7,0][5,4,2][8,3,6]] - Already visited Node!
[[0,1,7][5,4,2][8,3,6]] - f(n) = 20 + 8 = 28
[[1,4,7][5,0,2][8,3,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[1,7,2][5,3,0][8,6,4]]
Generated Nodes:
[[1,7,0][5,3,2][8,6,4]] - f(n) = 20 + 7 = 27
[[1,7,2][5,0,3][8,6,4]] - f(n) = 20 + 7 = 27
[[1,7,2][5,3,4][8,6,0]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,2][7,0,6][4,8,1]]
Generated Nodes:
[[5,0,2][7,3,6][4,8,1]] - Already visited Node!
[[5,3,2][7,6,0][4,8,1]] - f(n) = 21 + 7 = 28
[[5,3,2][0,7,6][4,8,1]] - f(n) = 21 + 6 = 27
[[5,3,2][7,8,6][4,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,5,4][2,0,6][3,8,1]]
Generated Nodes:
[[7,0,4][2,5,6][3,8,1]] - f(n) = 21 + 5 = 26
[[7,5,4][2,6,0][3,8,1]] - f(n) = 21 + 7 = 28
[[7,5,4][0,2,6][3,8,1]] - Already visited Node!
```

```
[[7,5,4][2,8,6][3,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,5,4][3,2,6][0,8,1]]
Generated Nodes:
[[7,5,4][0,2,6][3,8,1]] - Already visited Node!
[[7,5,4][3,2,6][8,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 20 - [[7,6,5][4,2,0][8,3,1]]
Generated Nodes:
[[7,6,0][4,2,5][8,3,1]] - f(n) = 20 + 7 = 27
[[7,6,5][4,0,2][8,3,1]] - Already visited Node!
[[7,6,5][4,2,1][8,3,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,6,5][4,3,2][8,0,1]]
Generated Nodes:
[[7,6,5][4,0,2][8,3,1]] - Already visited Node!
[[7,6,5][4,3,2][8,1,0]] - f(n) = 20 + 7 = 27
[[7,6,5][4,3,2][0,8,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,5,2][4,1,0][8,6,3]]
Generated Nodes:
[[7,5,0][4,1,2][8,6,3]] - f(n) = 20 + 7 = 27
[[7,5,2][4,0,1][8,6,3]] - Already visited Node!
[[7,5,2][4,1,3][8,6,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,0,2][7,3,6][1,4,8]]
Generated Nodes:
[[5,2,0][7,3,6][1,4,8]] - f(n) = 20 + 6 = 26
[[0,5,2][7,3,6][1,4,8]] - Already visited Node!
[[5,3,2][7,0,6][1,4,8]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,5,2][1,3,6][4,0,8]]
Generated Nodes:
[[7,5,2][1,0,6][4,3,8]] - f(n) = 20 + 7 = 27
[[7,5,2][1,3,6][4,8,0]] - f(n) = 20 + 6 = 26
[[7,5,2][1,3,6][0,4,8]] - Already visited Node!
Node Chosen for Level 20 - [[5,0,2][7,4,6][3,1,8]]
Generated Nodes:
```

```
[[5,2,0][7,4,6][3,1,8]] - f(n) = 20 + 6 = 26
[[0,5,2][7,4,6][3,1,8]] - Already visited Node!
[[5,4,2][7,0,6][3,1,8]] - f(n) = 20 + 7 = 27
Node Chosen for Level 19 - [[8,7,5][6,0,2][3,4,1]]
Generated Nodes:
[[8,0,5][6,7,2][3,4,1]] - f(n) = 19 + 8 = 27
[[8,7,5][6,2,0][3,4,1]] - f(n) = 19 + 8 = 27
[[8,7,5][0,6,2][3,4,1]] - Already visited Node!
[[8,7,5][6,4,2][3,0,1]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[8,7,5][3,6,2][0,4,1]]
Generated Nodes:
[[8,7,5][0,6,2][3,4,1]] - Already visited Node!
[[8,7,5][3,6,2][4,0,1]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,6,0][8,2,5][3,4,1]]
Generated Nodes:
[[7,0,6][8,2,5][3,4,1]] - Already visited Node!
[[7,6,5][8,2,0][3,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,6,5][8,2,1][3,4,0]]
Generated Nodes:
[[7,6,5][8,2,0][3,4,1]] - Already visited Node!
[[7,6,5][8,2,1][3,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,6,5][7,8,2][3,4,1]]
Generated Nodes:
[[6,0,5][7,8,2][3,4,1]] - f(n) = 19 + 8 = 27
[[7,6,5][0,8,2][3,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,6,5][3,8,2][0,4,1]]
Generated Nodes:
[[7,6,5][0,8,2][3,4,1]] - Already visited Node!
[[7,6,5][3,8,2][4,0,1]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,6,5][8,4,2][3,1,0]]
Generated Nodes:
```

```
[[7,6,5][8,4,0][3,1,2]] - f(n) = 19 + 8 = 27
[[7,6,5][8,4,2][3,0,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,6,5][8,4,2][0,3,1]]
Generated Nodes:
[[7,6,5][0,4,2][8,3,1]] - f(n) = 19 + 8 = 27
[[7,6,5][8,4,2][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,6][7,5,1][8,3,4]]
Generated Nodes:
[[2,0,6][7,5,1][8,3,4]] - f(n) = 21 + 7 = 28
[[7,2,6][0,5,1][8,3,4]] - Already visited Node!
Node Chosen for Level 19 - [[8,5,0][3,7,2][1,4,6]]
Generated Nodes:
[[8,0,5][3,7,2][1,4,6]] - Already visited Node!
[[8,5,2][3,7,0][1,4,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,8,5][3,7,2][1,4,6]]
Generated Nodes:
[[8,0,5][3,7,2][1,4,6]] - Already visited Node!
[[3,8,5][0,7,2][1,4,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[8,7,0][3,2,5][1,4,6]]
Generated Nodes:
[[8,0,7][3,2,5][1,4,6]] - f(n) = 19 + 8 = 27
[[8,7,5][3,2,0][1,4,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,7,5][8,3,2][1,4,6]]
Generated Nodes:
[[7,0,5][8,3,2][1,4,6]] - f(n) = 19 + 8 = 27
[[8,7,5][0,3,2][1,4,6]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,5][1,3,2][0,4,6]]
Generated Nodes:
[[8,7,5][0,3,2][1,4,6]] - Already visited Node!
[[8,7,5][1,3,2][4,0,6]] - f(n) = 19 + 8 = 27
```

```
Node Chosen for Level 19 - [[8,7,0][3,4,5][1,6,2]]
Generated Nodes:
[[8,0,7][3,4,5][1,6,2]] - f(n) = 19 + 8 = 27
[[8,7,5][3,4,0][1,6,2]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,5][3,0,4][1,6,2]]
Generated Nodes:
[[8,0,5][3,7,4][1,6,2]] - f(n) = 19 + 8 = 27
[[8,7,5][3,4,0][1,6,2]] - Already visited Node!
[[8,7,5][0,3,4][1,6,2]] - f(n) = 19 + 8 = 27
[[8,7,5][3,6,4][1,0,2]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[8,7,4][2,0,5][3,1,6]]
Generated Nodes:
[[8,0,4][2,7,5][3,1,6]] - f(n) = 19 + 8 = 27
[[8,7,4][2,5,0][3,1,6]] - f(n) = 19 + 7 = 26
[[8,7,4][0,2,5][3,1,6]] - Already visited Node!
[[8,7,4][2,1,5][3,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[8,7,4][3,2,5][0,1,6]]
Generated Nodes:
[[8,7,4][0,2,5][3,1,6]] - Already visited Node!
[[8,7,4][3,2,5][1,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[4,5,2][7,0,8][3,1,6]]
Generated Nodes:
[[4,0,2][7,5,8][3,1,6]] - f(n) = 19 + 7 = 26
[[4,5,2][7,8,0][3,1,6]] - Already visited Node!
[[4,5,2][0,7,8][3,1,6]] - f(n) = 19 + 8 = 27
[[4,5,2][7,1,8][3,0,6]] - f(n) =
                                19 + 8 = 27
Node Chosen for Level 19 - [[4,8,0][7,2,5][3,1,6]]
Generated Nodes:
[[4,0,8][7,2,5][3,1,6]] - f(n) = 19 + 8 = 27
[[4,8,5][7,2,0][3,1,6]] - Already visited Node!
Node Chosen for Level 19 - [[4,8,5][3,7,2][0,1,6]]
Generated Nodes:
```

```
[[4,8,5][0,7,2][3,1,6]] - Already visited Node!
[[4,8,5][3,7,2][1,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[4,8,5][7,1,2][3,6,0]]
Generated Nodes:
[[4,8,5][7,1,0][3,6,2]] - f(n) = 19 + 8 = 27
[[4,8,5][7,1,2][3,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[4,8,5][7,1,2][0,3,6]]
Generated Nodes:
[[4,8,5][0,1,2][7,3,6]] - f(n) = 19 + 7 = 26
[[4,8,5][7,1,2][3,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,0][3,8,5][1,6,2]]
Generated Nodes:
[[7,0,4][3,8,5][1,6,2]] - f(n) = 19 + 8 = 27
[[7,4,5][3,8,0][1,6,2]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][3,0,8][1,6,2]]
Generated Nodes:
[[7,0,5][3,4,8][1,6,2]] - f(n) = 19 + 8 = 27
[[7,4,5][3,8,0][1,6,2]] - Already visited Node!
[[7,4,5][0,3,8][1,6,2]] - f(n) = 19 + 8 = 27
[[7,4,5][3,6,8][1,0,2]] - f(n) =
                                19 + 8 = 27
Node Chosen for Level 19 - [[0,7,4][8,1,5][3,6,2]]
Generated Nodes:
[[7,0,4][8,1,5][3,6,2]] - Already visited Node!
[[8,7,4][0,1,5][3,6,2]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,1,4][8,0,5][3,6,2]]
Generated Nodes:
[[7,0,4][8,1,5][3,6,2]] - Already visited Node!
[[7,1,4][8,5,0][3,6,2]] - f(n) = 19 + 7 = 26
[[7,1,4][0,8,5][3,6,2]] - f(n) = 19 + 8 = 27
[[7,1,4][8,6,5][3,0,2]] - f(n) =
                                  19 + 8 = 27
Node Chosen for Level 19 - [[7,5,0][8,4,1][3,6,2]]
```

```
Generated Nodes:
[[7,0,5][8,4,1][3,6,2]] - Already visited Node!
[[7,5,1][8,4,0][3,6,2]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,7,5][8,4,1][3,6,2]]
Generated Nodes:
[[7,0,5][8,4,1][3,6,2]] - Already visited Node!
[[8,7,5][0,4,1][3,6,2]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,4,5][7,8,1][3,6,2]]
Generated Nodes:
[[4,0,5][7,8,1][3,6,2]] - f(n) = 19 + 8 = 27
[[7,4,5][0,8,1][3,6,2]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][3,8,1][0,6,2]]
Generated Nodes:
[[7,4,5][0,8,1][3,6,2]] - Already visited Node!
[[7,4,5][3,8,1][6,0,2]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,4,5][8,6,1][3,2,0]]
Generated Nodes:
[[7,4,5][8,6,0][3,2,1]] - Already visited Node!
[[7,4,5][8,6,1][3,0,2]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][8,6,1][0,3,2]]
Generated Nodes:
[[7,4,5][0,6,1][8,3,2]] - f(n) = 19 + 8 = 27
[[7,4,5][8,6,1][3,0,2]] - Already visited Node!
Node Chosen for Level 19 - [[4,5,0][7,1,2][8,3,6]]
Generated Nodes:
[[4,0,5][7,1,2][8,3,6]] - Already visited Node!
[[4,5,2][7,1,0][8,3,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[4,1,5][7,0,2][8,3,6]]
Generated Nodes:
[[4,0,5][7,1,2][8,3,6]] - Already visited Node!
```

```
[[4,1,5][7,2,0][8,3,6]] - f(n) = 19 + 8 = 27
[[4,1,5][0,7,2][8,3,6]] - f(n) = 19 + 8 = 27
[[4,1,5][7,3,2][8,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,4,0][1,2,5][8,3,6]]
Generated Nodes:
[[7,0,4][1,2,5][8,3,6]] - Already visited Node!
[[7,4,5][1,2,0][8,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][1,3,2][8,6,0]]
Generated Nodes:
[[7,4,5][1,3,0][8,6,2]] - f(n) = 19 + 8 = 27
[[7,4,5][1,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,8][3,4,2][0,1,6]]
Generated Nodes:
[[7,5,8][0,4,2][3,1,6]] - Already visited Node!
[[7,5,8][3,4,2][1,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,4,8][5,7,2][3,1,6]]
Generated Nodes:
[[4,0,8][5,7,2][3,1,6]] - f(n) = 19 + 8 = 27
[[5,4,8][0,7,2][3,1,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,4,8][3,7,2][0,1,6]]
Generated Nodes:
[[5,4,8][0,7,2][3,1,6]] - Already visited Node!
[[5,4,8][3,7,2][1,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[5,4,8][7,1,2][3,6,0]]
Generated Nodes:
[[5,4,8][7,1,0][3,6,2]] - f(n) = 19 + 8 = 27
[[5,4,8][7,1,2][3,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,4,8][7,1,2][0,3,6]]
Generated Nodes:
[[5,4,8][0,1,2][7,3,6]] - f(n) = 19 + 7 = 26
[[5,4,8][7,1,2][3,0,6]] - Already visited Node!
```

```
Node Chosen for Level 19 - [[8,7,0][5,4,2][3,1,6]]
Generated Nodes:
[[8,0,7][5,4,2][3,1,6]] - f(n) = 19 + 8 = 27
[[8,7,2][5,4,0][3,1,6]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,2][5,1,4][3,6,0]]
Generated Nodes:
[[8,7,2][5,1,0][3,6,4]] - Already visited Node!
[[8,7,2][5,1,4][3,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,2][5,1,4][0,3,6]]
Generated Nodes:
[[8,7,2][0,1,4][5,3,6]] - f(n) = 19 + 8 = 27
[[8,7,2][5,1,4][3,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,5,2][3,8,4][1,7,6]]
Generated Nodes:
[[5,0,2][3,8,4][1,7,6]] - Already visited Node!
[[3,5,2][0,8,4][1,7,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[5,8,0][3,4,2][1,7,6]]
Generated Nodes:
[[5,0,8][3,4,2][1,7,6]] - f(n) = 19 + 8 = 27
[[5,8,2][3,4,0][1,7,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,8,2][5,3,4][1,7,6]]
Generated Nodes:
[[8,0,2][5,3,4][1,7,6]] - f(n) = 19 + 8 = 27
[[5,8,2][0,3,4][1,7,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][1,3,4][0,7,6]]
Generated Nodes:
[[5,8,2][0,3,4][1,7,6]] - Already visited Node!
[[5,8,2][1,3,4][7,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,0][3,7,2][1,6,4]]
```

```
Generated Nodes:
[[5,0,8][3,7,2][1,6,4]] - f(n) = 19 + 8 = 27
[[5,8,2][3,7,0][1,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][3,0,7][1,6,4]]
Generated Nodes:
[[5,0,2][3,8,7][1,6,4]] - f(n) = 19 + 8 = 27
[[5,8,2][3,7,0][1,6,4]] - Already visited Node!
[[5,8,2][0,3,7][1,6,4]] - f(n) = 19 + 8 = 27
[[5,8,2][3,6,7][1,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,5,8][7,1,2][3,6,4]]
Generated Nodes:
[[5,0,8][7,1,2][3,6,4]] - Already visited Node!
[[7,5,8][0,1,2][3,6,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[5,1,8][7,0,2][3,6,4]]
Generated Nodes:
[[5,0,8][7,1,2][3,6,4]] - Already visited Node!
[[5,1,8][7,2,0][3,6,4]] - f(n) = 19 + 8 = 27
[[5,1,8][0,7,2][3,6,4]] - f(n) = 19 + 8 = 27
[[5,1,8][7,6,2][3,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,8,2][5,7,1][3,6,4]]
Generated Nodes:
[[8,0,2][5,7,1][3,6,4]] - Already visited Node!
[[5,8,2][0,7,1][3,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][3,7,1][0,6,4]]
Generated Nodes:
[[5,8,2][0,7,1][3,6,4]] - Already visited Node!
[[5,8,2][3,7,1][6,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[5,8,2][7,6,1][3,4,0]]
Generated Nodes:
[[5,8,2][7,6,0][3,4,1]] - Already visited Node!
[[5,8,2][7,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][7,6,1][0,3,4]]
```

```
Generated Nodes:
[[5,8,2][0,6,1][7,3,4]] - f(n) = 19 + 7 = 26
[[5,8,2][7,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[3,7,5][8,0,2][1,6,4]]
Generated Nodes:
[[3,0,5][8,7,2][1,6,4]] - f(n) = 19 + 8 = 27
[[3,7,5][8,2,0][1,6,4]] - f(n) =
                                  19 + 8 = 27
[[3,7,5][0,8,2][1,6,4]] - Already visited Node!
[[3,7,5][8,6,2][1,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[3,7,5][1,8,2][0,6,4]]
Generated Nodes:
[[3,7,5][0,8,2][1,6,4]] - Already visited Node!
[[3,7,5][1,8,2][6,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,8,0][3,2,5][1,6,4]]
Generated Nodes:
[[7,0,8][3,2,5][1,6,4]] - f(n) = 19 + 8 = 27
[[7,8,5][3,2,0][1,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,8,5][3,2,4][1,6,0]]
Generated Nodes:
[[7,8,5][3,2,0][1,6,4]] - Already visited Node!
[[7,8,5][3,2,4][1,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,8,5][7,3,2][1,6,4]]
Generated Nodes:
[[8,0,5][7,3,2][1,6,4]] - f(n) = 19 + 8 = 27
[[7,8,5][0,3,2][1,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,8,5][1,3,2][0,6,4]]
Generated Nodes:
[[7,8,5][0,3,2][1,6,4]] - Already visited Node!
[[7,8,5][1,3,2][6,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,8,5][3,6,2][1,4,0]]
```

```
Generated Nodes:
[[7,8,5][3,6,0][1,4,2]] - f(n) = 19 + 8 = 27
[[7,8,5][3,6,2][1,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,8,5][3,6,2][0,1,4]]
Generated Nodes:
[[7,8,5][0,6,2][3,1,4]] - f(n) = 19 + 8 = 27
[[7,8,5][3,6,2][1,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,3,2][7,0,8][1,6,4]]
Generated Nodes:
[[5,0,2][7,3,8][1,6,4]] - Already visited Node!
[[5,3,2][7,8,0][1,6,4]] - f(n) = 19 + 8 = 27
[[5,3,2][0,7,8][1,6,4]] - f(n) = 19 + 8 = 27
[[5,3,2][7,6,8][1,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,5,2][1,0,8][6,3,4]]
Generated Nodes:
[[7,0,2][1,5,8][6,3,4]] - f(n) = 19 + 7 = 26
[[7,5,2][1,8,0][6,3,4]] - f(n) = 19 + 8 = 27
[[7,5,2][0,1,8][6,3,4]] - f(n) = 19 + 8 = 27
[[7,5,2][1,3,8][6,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][1,3,8][6,4,0]]
Generated Nodes:
[[7,5,2][1,3,0][6,4,8]] - f(n) = 19 + 8 = 27
[[7,5,2][1,3,8][6,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,0][3,6,2][1,4,8]]
Generated Nodes:
[[7,0,5][3,6,2][1,4,8]] - f(n) = 19 + 8 = 27
[[7,5,2][3,6,0][1,4,8]] - Already visited Node!
Node Chosen for Level 19 - [[0,5,2][7,6,8][3,1,4]]
Generated Nodes:
[[5,0,2][7,6,8][3,1,4]] - f(n) = 19 + 8 = 27
[[7,5,2][0,6,8][3,1,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][6,0,8][3,1,4]]
```

```
Generated Nodes:
[[7,0,2][6,5,8][3,1,4]] - f(n) = 19 + 7 = 26
[[7,5,2][6,8,0][3,1,4]] - f(n) = 19 + 8 = 27
[[7,5,2][0,6,8][3,1,4]] - Already visited Node!
[[7,5,2][6,1,8][3,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[8,5,0][1,7,2][3,6,4]]
Generated Nodes:
[[8,0,5][1,7,2][3,6,4]] - Already visited Node!
[[8,5,2][1,7,0][3,6,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,8,5][1,7,2][3,6,4]]
Generated Nodes:
[[8,0,5][1,7,2][3,6,4]] - Already visited Node!
[[1,8,5][0,7,2][3,6,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[8,7,0][1,2,5][3,6,4]]
Generated Nodes:
[[8,0,7][1,2,5][3,6,4]] - f(n) = 19 + 8 = 27
[[8,7,5][1,2,0][3,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,5][1,2,4][3,6,0]]
Generated Nodes:
[[8,7,5][1,2,0][3,6,4]] - Already visited Node!
[[8,7,5][1,2,4][3,0,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[8,7,5][1,6,2][3,4,0]]
Generated Nodes:
[[8,7,5][1,6,0][3,4,2]] - f(n) = 19 + 8 = 27
[[8,7,5][1,6,2][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,5][1,6,2][0,3,4]]
Generated Nodes:
[[8,7,5][0,6,2][1,3,4]] - f(n) = 19 + 8 = 27
[[8,7,5][1,6,2][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,5][3,0,2][6,1,4]]
```

```
Generated Nodes:
[[8,0,5][3,7,2][6,1,4]] - f(n) = 19 + 8 = 27
[[8,7,5][3,2,0][6,1,4]] - f(n) = 19 + 8 = 27
[[8,7,5][0,3,2][6,1,4]] - f(n) =
                                19 + 8 = 27
[[8,7,5][3,1,2][6,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[8,7,5][3,1,2][6,4,0]]
Generated Nodes:
[[8,7,5][3,1,0][6,4,2]] - f(n) = 19 + 8 = 27
[[8,7,5][3,1,2][6,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[0,7,1][8,2,5][3,6,4]]
Generated Nodes:
[[7,0,1][8,2,5][3,6,4]] - Already visited Node!
[[8,7,1][0,2,5][3,6,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,1,5][8,0,4][3,2,6]]
Generated Nodes:
[[7,0,5][8,1,4][3,2,6]] - f(n) = 19 + 8 = 27
[[7,1,5][8,4,0][3,2,6]] - f(n) = 19 + 8 = 27
[[7,1,5][0,8,4][3,2,6]] - f(n) = 19 + 8 = 27
[[7,1,5][8,2,4][3,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,1,5][8,2,4][0,3,6]]
Generated Nodes:
[[7,1,5][0,2,4][8,3,6]] - f(n) = 19 + 8 = 27
[[7,1,5][8,2,4][3,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,1,5][3,8,2][6,4,0]]
Generated Nodes:
[[7,1,5][3,8,0][6,4,2]] - f(n) = 19 + 8 = 27
[[7,1,5][3,8,2][6,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,1,0][8,6,5][3,4,2]]
Generated Nodes:
[[7,0,1][8,6,5][3,4,2]] - f(n) = 19 + 8 = 27
[[7,1,5][8,6,0][3,4,2]] - Already visited Node!
Node Chosen for Level 19 - [[0,1,5][7,6,2][8,3,4]]
```

```
Generated Nodes:
[[1,0,5][7,6,2][8,3,4]] - f(n) = 19 + 7 = 26
[[7,1,5][0,6,2][8,3,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,1,5][6,0,2][8,3,4]]
Generated Nodes:
[[7,0,5][6,1,2][8,3,4]] - f(n) = 19 + 8 = 27
[[7,1,5][6,2,0][8,3,4]] - f(n) =
                                  19 + 8 = 27
[[7,1,5][0,6,2][8,3,4]] - Already visited Node!
[[7,1,5][6,3,2][8,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,8,2][5,7,1][3,6,4]]
Generated Nodes:
[[8,0,2][5,7,1][3,6,4]] - Already visited Node!
[[5,8,2][0,7,1][3,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][3,7,1][0,6,4]]
Generated Nodes:
[[5,8,2][0,7,1][3,6,4]] - Already visited Node!
[[5,8,2][3,7,1][6,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[5,8,2][7,6,1][3,4,0]]
Generated Nodes:
[[5,8,2][7,6,0][3,4,1]] - Already visited Node!
[[5,8,2][7,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,8,2][7,6,1][0,3,4]]
Generated Nodes:
[[5,8,2][0,6,1][7,3,4]] - f(n) = 19 + 7 = 26
[[5,8,2][7,6,1][3,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,0][3,8,2][6,4,1]]
Generated Nodes:
[[7,0,5][3,8,2][6,4,1]] - f(n) = 19 + 8 = 27
[[7,5,2][3,8,0][6,4,1]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][3,0,8][6,4,1]]
```

```
Generated Nodes:
[[7,0,2][3,5,8][6,4,1]] - f(n) = 19 + 7 = 26
[[7,5,2][3,8,0][6,4,1]] - Already visited Node!
[[7,5,2][0,3,8][6,4,1]] - f(n) = 19 + 8 = 27
[[7,5,2][3,4,8][6,0,1]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[5,6,2][7,0,1][8,3,4]]
Generated Nodes:
[[5,0,2][7,6,1][8,3,4]] - Already visited Node!
[[5,6,2][7,1,0][8,3,4]] - f(n) = 19 + 8 = 27
[[5,6,2][0,7,1][8,3,4]] - f(n) = 19 + 8 = 27
[[5,6,2][7,3,1][8,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,5,0][6,1,2][8,3,4]]
Generated Nodes:
[[7,0,5][6,1,2][8,3,4]] - f(n) = 19 + 8 = 27
[[7,5,2][6,1,0][8,3,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][6,1,4][8,3,0]]
Generated Nodes:
[[7,5,2][6,1,0][8,3,4]] - Already visited Node!
[[7,5,2][6,1,4][8,0,3]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,5,2][6,3,1][8,4,0]]
Generated Nodes:
[[7,5,2][6,3,0][8,4,1]] - f(n) = 19 + 8 = 27
[[7,5,2][6,3,1][8,0,4]] - Already visited Node!
Node Chosen for Level 19 - [[0,5,1][7,4,2][8,3,6]]
Generated Nodes:
[[5,0,1][7,4,2][8,3,6]] - Already visited Node!
[[7,5,1][0,4,2][8,3,6]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[5,4,1][7,0,2][8,3,6]]
Generated Nodes:
[[5,0,1][7,4,2][8,3,6]] - Already visited Node!
[[5,4,1][7,2,0][8,3,6]] - f(n) = 19 + 8 = 27
[[5,4,1][0,7,2][8,3,6]] - f(n) = 19 + 8 = 27
[[5,4,1][7,3,2][8,0,6]] - f(n) = 19 + 8 = 27
```

```
Node Chosen for Level 19 - [[5,1,2][8,0,4][3,7,6]]
Generated Nodes:
[[5,0,2][8,1,4][3,7,6]] - f(n) = 19 + 8 = 27
[[5,1,2][8,4,0][3,7,6]] - f(n) = 19 + 8 = 27
[[5,1,2][0,8,4][3,7,6]] - f(n) = 19 + 8 = 27
[[5,1,2][8,7,4][3,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,1,2][8,7,4][3,6,0]]
Generated Nodes:
[[5,1,2][8,7,0][3,6,4]] - f(n) = 19 + 8 = 27
[[5,1,2][8,7,4][3,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[5,1,0][7,3,2][8,6,4]]
Generated Nodes:
[[5,0,1][7,3,2][8,6,4]] - f(n) = 19 + 8 = 27
[[5,1,2][7,3,0][8,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[5,1,2][7,0,3][8,6,4]]
Generated Nodes:
[[5,0,2][7,1,3][8,6,4]] - f(n) = 19 + 8 = 27
[[5,1,2][7,3,0][8,6,4]] - Already visited Node! [[5,1,2][0,7,3][8,6,4]] - f(n) = 19 + 8 = 27
[[5,1,2][7,6,3][8,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,4,0][1,2,5][8,3,6]]
Generated Nodes:
[[7,0,4][1,2,5][8,3,6]] - Already visited Node!
[[7,4,5][1,2,0][8,3,6]] - Already visited Node!
Node Chosen for Level 19 - [[7,4,5][1,3,2][8,6,0]]
Generated Nodes:
[[7,4,5][1,3,0][8,6,2]] - f(n) = 19 + 8 = 27
[[7,4,5][1,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 19 - [[0,7,5][1,3,2][8,6,4]]
Generated Nodes:
[[7,0,5][1,3,2][8,6,4]] - Already visited Node!
```

```
[[1,7,5][0,3,2][8,6,4]] - f(n) = 19 + 7 = 26
Node Chosen for Level 19 - [[7,3,5][1,0,2][8,6,4]]
Generated Nodes:
[[7,0,5][1,3,2][8,6,4]] - Already visited Node!
[[7,3,5][1,2,0][8,6,4]] - f(n) = 19 + 8 = 27
[[7,3,5][0,1,2][8,6,4]] - f(n) = 19 + 8 = 27
[[7,3,5][1,6,2][8,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[0,5,2][7,1,3][8,6,4]]
Generated Nodes:
[[5,0,2][7,1,3][8,6,4]] - f(n) = 19 + 8 = 27
[[7,5,2][0,1,3][8,6,4]] - Already visited Node!
Node Chosen for Level 19 - [[7,5,2][8,1,3][0,6,4]]
Generated Nodes:
[[7,5,2][0,1,3][8,6,4]] - Already visited Node!
[[7,5,2][8,1,3][6,0,4]] - f(n) = 19 + 8 = 27
Node Chosen for Level 19 - [[7,5,2][1,6,3][8,4,0]]
Generated Nodes:
[[7,5,2][1,6,0][8,4,3]] - Already visited Node!
[[7,5,2][1,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 20 - [[5,8,2][3,7,6][4,0,1]]
Generated Nodes:
[[5,8,2][3,0,6][4,7,1]] - f(n) = 20 + 7 = 27
[[5,8,2][3,7,6][4,1,0]] - f(n) = 20 + 7 = 27
[[5,8,2][3,7,6][0,4,1]] - Already visited Node!
Node Chosen for Level 20 - [[4,0,2][5,7,6][8,3,1]]
Generated Nodes:
[[4,2,0][5,7,6][8,3,1]] - f(n) = 20 + 6 = 26
[[0,4,2][5,7,6][8,3,1]] - Already visited Node!
[[4,7,2][5,0,6][8,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[5,4,2][8,7,6][3,0,1]]
Generated Nodes:
```

```
[[5,4,2][8,0,6][3,7,1]] - f(n) = 20 + 7 = 27
[[5,4,2][8,7,6][3,1,0]] - f(n) = 20 + 7 = 27
[[5,4,2][8,7,6][0,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[5,2,4][3,8,0][1,7,6]]
Generated Nodes:
[[5,2,0][3,8,4][1,7,6]] - Already visited Node!
[[5,2,4][3,0,8][1,7,6]] - Already visited Node!
[[5,2,4][3,8,6][1,7,0]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[5,2,4][0,3,8][1,7,6]]
Generated Nodes:
[[0,2,4][5,3,8][1,7,6]] - f(n) = 20 + 7 = 27
[[5,2,4][3,0,8][1,7,6]] - Already visited Node!
[[5,2,4][1,3,8][0,7,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,4][3,7,0][1,6,8]]
Generated Nodes:
[[5,2,0][3,7,4][1,6,8]] - f(n) = 20 + 7 = 27
[[5,2,4][3,0,7][1,6,8]] - f(n) = 20 + 7 = 27
[[5,2,4][3,7,8][1,6,0]] - Already visited Node!
Node Chosen for Level 20 - [[5,2,4][0,7,1][3,6,8]]
Generated Nodes:
[[0,2,4][5,7,1][3,6,8]] - f(n) = 20 + 7 = 27
[[5,2,4][7,0,1][3,6,8]] - Already visited Node!
[[5,2,4][3,7,1][0,6,8]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,4][7,6,1][3,0,8]]
Generated Nodes:
[[5,2,4][7,0,1][3,6,8]] - Already visited Node!
[[5,2,4][7,6,1][3,8,0]] - Already visited Node!
[[5,2,4][7,6,1][0,3,8]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[4,0,5][7,3,2][1,8,6]]
Generated Nodes:
[[4,5,0][7,3,2][1,8,6]] - f(n) = 20 + 7 = 27
[[0,4,5][7,3,2][1,8,6]] - Already visited Node!
[[4,3,5][7,0,2][1,8,6]] - f(n) = 20 + 7 = 27
```

```
Node Chosen for Level 20 - [[8,7,2][3,5,0][6,4,1]]
Generated Nodes:
[[8,7,0][3,5,2][6,4,1]] - f(n) = 20 + 7 = 27
[[8,7,2][3,0,5][6,4,1]] - f(n) = 20 + 8 = 28
[[8,7,2][3,5,1][6,4,0]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,1][7,5,4][8,3,6]]
Generated Nodes:
[[2,0,1][7,5,4][8,3,6]] - f(n) = 21 + 7 = 28
[[7,2,1][0,5,4][8,3,6]] - Already visited Node!
Node Chosen for Level 20 - [[8,5,2][4,1,7][3,0,6]]
Generated Nodes:
[[8,5,2][4,0,7][3,1,6]] - Already visited Node!
[[8,5,2][4,1,7][3,6,0]] - f(n) = 20 + 7 = 27
[[8,5,2][4,1,7][0,3,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[8,0,7][4,1,5][3,6,2]]
Generated Nodes:
[[8,7,0][4,1,5][3,6,2]] - Already visited Node!
[[0,8,7][4,1,5][3,6,2]] - f(n) = 20 + 7 = 27
[[8,1,7][4,0,5][3,6,2]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[8,0,5][4,7,1][3,6,2]]
Generated Nodes:
[[8,5,0][4,7,1][3,6,2]] - f(n) = 20 + 7 = 27
[[0,8,5][4,7,1][3,6,2]] - f(n) = 20 + 7 = 27
[[8,7,5][4,0,1][3,6,2]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,5][4,6,1][3,0,2]]
Generated Nodes:
[[8,7,5][4,0,1][3,6,2]] - Already visited Node!
[[8,7,5][4,6,1][3,2,0]] - f(n) = 20 + 7 = 27
[[8,7,5][4,6,1][0,3,2]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[8,7,5][0,4,6][3,2,1]]
Generated Nodes:
[[0,7,5][8,4,6][3,2,1]] - Already visited Node!
```

```
[[8,7,5][4,0,6][3,2,1]] - Already visited Node!
[[8,7,5][3,4,6][0,2,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[4,0,5][7,8,6][3,2,1]]
Generated Nodes:
[[4,5,0][7,8,6][3,2,1]] - f(n) = 20 + 7 = 27
[[0,4,5][7,8,6][3,2,1]] - Already visited Node!
[[4,8,5][7,0,6][3,2,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,4,5][3,8,6][2,0,1]]
Generated Nodes:
[[7,4,5][3,0,6][2,8,1]] - f(n) = 20 + 6 = 26
[[7,4,5][3,8,6][2,1,0]] - f(n) = 20 + 7 = 27
[[7,4,5][3,8,6][0,2,1]] - Already visited Node!
Node Chosen for Level 20 - [[4,0,5][7,2,6][8,3,1]]
Generated Nodes:
[[4,5,0][7,2,6][8,3,1]] - f(n) = 20 + 7 = 27
[[0,4,5][7,2,6][8,3,1]] - Already visited Node!
[[4,2,5][7,0,6][8,3,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,0,5][2,4,6][8,3,1]]
Generated Nodes:
[[7,5,0][2,4,6][8,3,1]] - f(n) = 20 + 7 = 27
[[0,7,5][2,4,6][8,3,1]] - f(n) = 20 + 7 = 27
[[7,4,5][2,0,6][8,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[7,4,5][2,3,6][8,0,1]]
Generated Nodes:
[[7,4,5][2,0,6][8,3,1]] - Already visited Node!
[[7,4,5][2,3,6][8,1,0]] - f(n) = 20 + 7 = 27
[[7,4,5][2,3,6][0,8,1]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[5,8,2][3,7,6][4,0,1]]
Generated Nodes:
[[5,8,2][3,0,6][4,7,1]] - f(n) = 20 + 7 = 27
[[5,8,2][3,7,6][4,1,0]] - f(n) = 20 + 7 = 27
[[5,8,2][3,7,6][0,4,1]] - Already visited Node!
Node Chosen for Level 20 - [[5,2,4][8,7,1][3,0,6]]
```

```
Generated Nodes:
```

```
[[5,2,4][8,0,1][3,7,6]] - f(n) = 20 + 7 = 27
[[5,2,4][8,7,1][3,6,0]] - f(n) = 20 + 7 = 27
[[5,2,4][8,7,1][0,3,6]] - Already visited Node!
```

Node Chosen for Level 20 - [[5,2,4][7,3,0][8,6,1]]

Generated Nodes:

```
[[5,2,0][7,3,4][8,6,1]] - f(n) = 20 + 7 = 27
[[5,2,4][7,0,3][8,6,1]] - f(n) = 20 + 7 = 27
[[5,2,4][7,3,1][8,6,0]] - Already visited Node!
```

Node Chosen for Level 20 - [[5,0,2][7,1,6][8,4,3]]

Generated Nodes:

```
[[5,2,0][7,1,6][8,4,3]] - f(n) = 20 + 6 = 26
[[0,5,2][7,1,6][8,4,3]] - Already visited Node!
[[5,1,2][7,0,6][8,4,3]] - Already visited Node!
```

Node Chosen for Level 20 - [[7,5,2][8,1,6][4,0,3]]

Generated Nodes:

```
[[7,5,2][8,0,6][4,1,3]] - f(n) = 20 + 7 = 27
[[7,5,2][8,1,6][4,3,0]] - f(n) = 20 + 7 = 27
[[7,5,2][8,1,6][0,4,3]] - Already visited Node!
```

Node Chosen for Level 21 - [[1,7,0][8,5,2][3,6,4]]

Generated Nodes:

```
[[1,0,7][8,5,2][3,6,4]] - f(n) = 21 + 6 = 27
[[1,7,2][8,5,0][3,6,4]] - Already visited Node!
```

Node Chosen for Level 20 - [[8,1,2][5,4,0][7,3,6]]

Generated Nodes:

$$[[8,1,0][5,4,2][7,3,6]] - f(n) = 20 + 7 = 27$$

 $[[8,1,2][5,0,4][7,3,6]] - Already visited Node!$
 $[[8,1,2][5,4,6][7,3,0]] - f(n) = 20 + 6 = 26$

Node Chosen for Level 20 - [[8,1,2][5,3,4][7,0,6]]

Generated Nodes:

```
[[8,1,2][5,0,4][7,3,6]] - Already visited Node!
[[8,1,2][5,3,4][7,6,0]] - f(n) = 20 + 7 = 27
```

```
[[8,1,2][5,3,4][0,7,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,0,8][1,4,2][7,3,6]]
Generated Nodes:
[[5,8,0][1,4,2][7,3,6]] - Already visited Node!
[[0,5,8][1,4,2][7,3,6]] - f(n) = 20 + 7 = 27
[[5,4,8][1,0,2][7,3,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,8,2][1,3,0][7,6,4]]
Generated Nodes:
[[5,8,0][1,3,2][7,6,4]] - f(n) = 20 + 7 = 27
[[5,8,2][1,0,3][7,6,4]] - f(n) = 20 + 7 = 27
[[5,8,2][1,3,4][7,6,0]] - Already visited Node!
Node Chosen for Level 20 - [[3,7,2][1,5,8][6,0,4]]
Generated Nodes:
[[3,7,2][1,0,8][6,5,4]] - f(n) = 20 + 8 = 28
[[3,7,2][1,5,8][6,4,0]] - f(n) = 20 + 7 = 27
[[3,7,2][1,5,8][0,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,2][7,0,6][4,8,1]]
Generated Nodes:
[[5,0,2][7,3,6][4,8,1]] - Already visited Node!
[[5,3,2][7,6,0][4,8,1]] - f(n) = 21 + 7 = 28
[[5,3,2][0,7,6][4,8,1]] - f(n) = 21 + 6 = 27
[[5,3,2][7,8,6][4,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,2,4][5,7,3][1,8,6]]
Generated Nodes:
[[2,0,4][5,7,3][1,8,6]] - f(n) = 21 + 7 = 28
[[5,2,4][0,7,3][1,8,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][1,7,3][0,8,6]]
Generated Nodes:
[[5,2,4][0,7,3][1,8,6]] - Already visited Node!
[[5,2,4][1,7,3][8,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[8,5,0][4,7,6][3,2,1]]
Generated Nodes:
```

```
[[8,0,5][4,7,6][3,2,1]] - Already visited Node!
[[8,5,6][4,7,0][3,2,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,8,5][4,7,6][3,2,1]]
Generated Nodes:
[[8,0,5][4,7,6][3,2,1]] - Already visited Node!
[[4,8,5][0,7,6][3,2,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,2,4][5,7,6][8,1,3]]
Generated Nodes:
[[2,0,4][5,7,6][8,1,3]] - f(n) = 21 + 7 = 28
[[5,2,4][0,7,6][8,1,3]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][8,7,6][0,1,3]]
Generated Nodes:
[[5,2,4][0,7,6][8,1,3]] - Already visited Node!
[[5,2,4][8,7,6][1,0,3]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,4,2][7,0,6][1,8,3]]
Generated Nodes:
[[5,0,2][7,4,6][1,8,3]] - Already visited Node!
[[5,4,2][7,6,0][1,8,3]] - f(n) = 21 + 7 = 28
[[5,4,2][0,7,6][1,8,3]] - f(n) = 21 + 6 = 27
[[5,4,2][7,8,6][1,0,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,2,8][3,5,4][0,1,6]]
Generated Nodes:
[[7,2,8][0,5,4][3,1,6]] - f(n) = 21 + 6 = 27
[[7,2,8][3,5,4][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,2][1,5,6][0,4,8]]
Generated Nodes:
[[3,7,2][0,5,6][1,4,8]] - Already visited Node!
[[3,7,2][1,5,6][4,0,8]] - f(n) = 21 + 6 = 27
Node Chosen for Level 20 - [[4,0,5][7,3,2][1,8,6]]
Generated Nodes:
```

```
[[4,5,0][7,3,2][1,8,6]] - f(n) = 20 + 7 = 27
[[0,4,5][7,3,2][1,8,6]] - Already visited Node!
[[4,3,5][7,0,2][1,8,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[8,2,4][5,1,7][3,0,6]]
Generated Nodes:
[[8,2,4][5,0,7][3,1,6]] - Already visited Node!
[[8,2,4][5,1,7][3,6,0]] - f(n) = 20 + 7 = 27
[[8,2,4][5,1,7][0,3,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,1][0,7,8][3,6,4]]
Generated Nodes:
[[0,2,1][5,7,8][3,6,4]] - f(n) = 20 + 7 = 27
[[5,2,1][7,0,8][3,6,4]] - Already visited Node!
[[5,2,1][3,7,8][0,6,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,1][7,6,8][3,0,4]]
Generated Nodes:
[[5,2,1][7,0,8][3,6,4]] - Already visited Node!
[[5,2,1][7,6,8][3,4,0]] - f(n) = 20 + 7 = 27
[[5,2,1][7,6,8][0,3,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,1][7,8,4][3,0,6]]
Generated Nodes:
[[5,2,1][7,0,4][3,8,6]] - f(n) = 20 + 6 = 26
[[5,2,1][7,8,4][3,6,0]] - Already visited Node!
[[5,2,1][7,8,4][0,3,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,0,5][3,1,2][6,8,4]]
Generated Nodes:
[[7,5,0][3,1,2][6,8,4]] - Already visited Node!
[[0,7,5][3,1,2][6,8,4]] - f(n) = 20 + 7 = 27
[[7,1,5][3,0,2][6,8,4]] - Already visited Node!
Node Chosen for Level 20 - [[5,0,2][7,3,1][6,8,4]]
Generated Nodes:
[[5,2,0][7,3,1][6,8,4]] - f(n) = 20 + 6 = 26
[[0,5,2][7,3,1][6,8,4]] - Already visited Node!
[[5,3,2][7,0,1][6,8,4]] - f(n) = 20 + 7 = 27
```

```
Node Chosen for Level 20 - [[5,0,2][7,1,6][8,4,3]]
Generated Nodes:
[[5,2,0][7,1,6][8,4,3]] - f(n) = 20 + 6 = 26
[[0,5,2][7,1,6][8,4,3]] - Already visited Node!
[[5,1,2][7,0,6][8,4,3]] - Already visited Node!
Node Chosen for Level 20 - [[5,1,2][0,7,6][8,4,3]]
Generated Nodes:
[[0,1,2][5,7,6][8,4,3]] - f(n) = 20 + 7 = 27
[[5,1,2][7,0,6][8,4,3]] - Already visited Node!
[[5,1,2][8,7,6][0,4,3]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[5,2,4][1,3,8][7,6,0]]
Generated Nodes:
[[5,2,4][1,3,0][7,6,8]] - f(n) = 21 + 6 = 27
[[5,2,4][1,3,8][7,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,4,2][5,0,6][7,3,1]]
Generated Nodes:
[[8,0,2][5,4,6][7,3,1]] - Already visited Node!
[[8,4,2][5,6,0][7,3,1]] - f(n) = 21 + 7 = 28
[[8,4,2][0,5,6][7,3,1]] - f(n) = 21 + 5 = 26
[[8,4,2][5,3,6][7,0,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[3,7,2][6,5,1][0,8,4]]
Generated Nodes:
[[3,7,2][0,5,1][6,8,4]] - Already visited Node!
[[3,7,2][6,5,1][8,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,5,2][3,1,4][7,8,6]]
Generated Nodes:
[[5,0,2][3,1,4][7,8,6]] - Already visited Node!
[[3,5,2][0,1,4][7,8,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,1,0][3,4,2][7,8,6]]
Generated Nodes:
[[5,0,1][3,4,2][7,8,6]] - f(n) = 21 + 6 = 27
[[5,1,2][3,4,0][7,8,6]] - Already visited Node!
```

```
Node Chosen for Level 21 - [[3,2,4][5,0,7][1,8,6]]
Generated Nodes:
[[3,0,4][5,2,7][1,8,6]] - f(n) = 21 + 7 = 28
[[3,2,4][5,7,0][1,8,6]] - Already visited Node!
[[3,2,4][0,5,7][1,8,6]] - f(n) = 21 + 5 = 26
[[3,2,4][5,8,7][1,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,2,4][5,0,7][8,3,6]]
Generated Nodes:
[[1,0,4][5,2,7][8,3,6]] - f(n) = 21 + 7 = 28
[[1,2,4][5,7,0][8,3,6]] - Already visited Node!
[[1,2,4][0,5,7][8,3,6]] - f(n) = 21 + 5 = 26
[[1,2,4][5,3,7][8,0,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[1,7,2][5,0,6][8,4,3]]
Generated Nodes:
[[1,0,2][5,7,6][8,4,3]] - f(n) = 21 + 6 = 27
[[1,7,2][5,6,0][8,4,3]] - f(n) = 21 + 7 = 28
[[1,7,2][0,5,6][8,4,3]] - Already visited Node!
[[1,7,2][5,4,6][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[1,7,2][3,0,4][5,8,6]]
Generated Nodes:
[[1,0,2][3,7,4][5,8,6]] - f(n) = 21 + 6 = 27
[[1,7,2][3,4,0][5,8,6]] - f(n) = 21 + 6 = 27
[[1,7,2][0,3,4][5,8,6]] - Already visited Node!
[[1,7,2][3,8,4][5,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,5,2][4,1,6][0,3,8]]
Generated Nodes:
[[7,5,2][0,1,6][4,3,8]] - f(n) = 21 + 7 = 28
[[7,5,2][4,1,6][3,0,8]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,2][3,5,4][1,0,6]]
Generated Nodes:
[[8,7,2][3,0,4][1,5,6]] - f(n) = 20 + 8 = 28
[[8,7,2][3,5,4][1,6,0]] - f(n) = 20 + 7 = 27
[[8,7,2][3,5,4][0,1,6]] - Already visited Node!
```

```
Node Chosen for Level 20 - [[1,5,2][7,8,0][3,6,4]]
Generated Nodes:
[[1,5,0][7,8,2][3,6,4]] - Already visited Node!
[[1,5,2][7,0,8][3,6,4]] - f(n) = 20 + 7 = 27
[[1,5,2][7,8,4][3,6,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[1,8,5][7,2,0][3,6,4]]
Generated Nodes:
[[1,8,0][7,2,5][3,6,4]] - f(n) = 20 + 7 = 27
[[1,8,5][7,0,2][3,6,4]] - Already visited Node!
[[1,8,5][7,2,4][3,6,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[1,8,5][0,7,2][3,6,4]]
Generated Nodes:
[[0,8,5][1,7,2][3,6,4]] - Already visited Node!
[[1,8,5][7,0,2][3,6,4]] - Already visited Node!
[[1,8,5][3,7,2][0,6,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[1,8,5][7,6,2][3,0,4]]
Generated Nodes:
[[1,8,5][7,0,2][3,6,4]] - Already visited Node!
[[1,8,5][7,6,2][3,4,0]] - f(n) = 20 + 7 = 27
[[1,8,5][7,6,2][0,3,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[6,7,2][0,5,1][8,3,4]]
Generated Nodes:
[[0,7,2][6,5,1][8,3,4]] - Already visited Node!
[[6,7,2][5,0,1][8,3,4]] - f(n) = 20 + 8 = 28
[[6,7,2][8,5,1][0,3,4]] - f(n) =
                                  20 + 7 = 27
Node Chosen for Level 20 - [[1,7,5][8,4,2][3,0,6]]
Generated Nodes:
[[1,7,5][8,0,2][3,4,6]] - f(n) = 20 + 7 = 27
[[1,7,5][8,4,2][3,6,0]] - f(n) = 20 + 7 = 27
[[1,7,5][8,4,2][0,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[3,5,0][4,7,2][1,8,6]]
Generated Nodes:
```

```
[[3,0,5][4,7,2][1,8,6]] - Already visited Node!
[[3,5,2][4,7,0][1,8,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[0,3,5][4,7,2][1,8,6]]
Generated Nodes:
[[3,0,5][4,7,2][1,8,6]] - Already visited Node!
[[4,3,5][0,7,2][1,8,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[3,7,0][4,2,5][1,8,6]]
Generated Nodes:
[[3,0,7][4,2,5][1,8,6]] - f(n) = 21 + 6 = 27
[[3,7,5][4,2,0][1,8,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,5,2][4,0,6][3,7,1]]
Generated Nodes:
[[8,0,2][4,5,6][3,7,1]] - f(n) = 21 + 5 = 26
[[8,5,2][4,6,0][3,7,1]] - f(n) = 21 + 7 = 28
[[8,5,2][0,4,6][3,7,1]] - f(n) = 21 + 7 = 28
[[8,5,2][4,7,6][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,5,2][4,7,6][0,3,1]]
Generated Nodes:
[[8,5,2][0,7,6][4,3,1]] - f(n) = 21 + 7 = 28
[[8,5,2][4,7,6][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,7][4,1,5][3,6,0]]
Generated Nodes:
[[8,2,7][4,1,0][3,6,5]] - f(n) = 21 + 6 = 27
[[8,2,7][4,1,5][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,7][4,1,5][0,3,6]]
Generated Nodes:
[[8,2,7][0,1,5][4,3,6]] - f(n) = 21 + 7 = 28
[[8,2,7][4,1,5][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,4][5,0,1][7,3,6]]
Generated Nodes:
[[8,0,4][5,2,1][7,3,6]] - f(n) = 21 + 7 = 28
```

```
[[8,2,4][5,1,0][7,3,6]] - Already visited Node!
[[8,2,4][0,5,1][7,3,6]] - f(n) = 21 + 5 = 26
[[8,2,4][5,3,1][7,0,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,8,2][1,0,6][7,4,3]]
Generated Nodes:
[[5,0,2][1,8,6][7,4,3]] - f(n) =
                                 21 + 6 = 27
[[5,8,2][1,6,0][7,4,3]] - f(n) = 21 + 7 = 28
[[5,8,2][0,1,6][7,4,3]] - f(n) = 21 + 6 = 27
[[5,8,2][1,4,6][7,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,4][5,0,6][3,7,1]]
Generated Nodes:
[[8,0,4][5,2,6][3,7,1]] - f(n) = 21 + 7 = 28
[[8,2,4][5,6,0][3,7,1]] - f(n) = 21 + 7 = 28
[[8,2,4][0,5,6][3,7,1]] - f(n) = 21 + 5 = 26
[[8,2,4][5,7,6][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,4][5,7,6][0,3,1]]
Generated Nodes:
[[8,2,4][0,7,6][5,3,1]] - f(n) = 21 + 6 = 27
[[8,2,4][5,7,6][3,0,1]] - Already visited Node!
Node Chosen for Level 22 - [[1,7,2][8,5,6][4,0,3]]
Generated Nodes:
[[1,7,2][8,0,6][4,5,3]] - f(n) = 22 + 6 = 28
[[1,7,2][8,5,6][4,3,0]] - f(n) = 22 + 5 = 27
[[1,7,2][8,5,6][0,4,3]] - Already visited Node!
Node Chosen for Level 22 - [[1,3,2][5,4,0][7,8,6]]
Generated Nodes:
[[1,3,0][5,4,2][7,8,6]] - f(n) = 22 + 5 = 27
[[1,3,2][5,0,4][7,8,6]] - Already visited Node!
[[1,3,2][5,4,6][7,8,0]] - f(n) = 22 + 4 = 26
Node Chosen for Level 21 - [[7,2,1][6,5,4][8,3,0]]
Generated Nodes:
[[7,2,1][6,5,0][8,3,4]] - Already visited Node!
[[7,2,1][6,5,4][8,0,3]] - f(n) = 21 + 6 = 27
```

```
Node Chosen for Level 21 - [[1,5,0][4,7,2][8,3,6]]
Generated Nodes:
[[1,0,5][4,7,2][8,3,6]] - Already visited Node!
[[1,5,2][4,7,0][8,3,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[1,7,0][4,2,5][8,3,6]]
Generated Nodes:
[[1,0,7][4,2,5][8,3,6]] - f(n) = 21 + 6 = 27
[[1,7,5][4,2,0][8,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[1,7,5][4,3,2][8,6,0]]
Generated Nodes:
[[1,7,5][4,3,0][8,6,2]] - f(n) = 21 + 6 = 27
[[1,7,5][4,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,0,2][5,3,6][7,8,1]]
Generated Nodes:
[[4,2,0][5,3,6][7,8,1]] - f(n) = 22 + 4 = 26
[[0,4,2][5,3,6][7,8,1]] - Already visited Node!
[[4,3,2][5,0,6][7,8,1]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[5,0,2][3,4,6][7,8,1]]
Generated Nodes:
[[5,2,0][3,4,6][7,8,1]] - f(n) = 22 + 4 = 26
[[0,5,2][3,4,6][7,8,1]] - f(n) = 22 + 5 = 27
[[5,4,2][3,0,6][7,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,4][3,1,0][7,8,6]]
Generated Nodes:
[[5,2,0][3,1,4][7,8,6]] - Already visited Node!
[[5,2,4][3,0,1][7,8,6]] - Already visited Node!
[[5,2,4][3,1,6][7,8,0]] - f(n) = 22 + 4 = 26
Node Chosen for Level 23 - [[1,2,4][5,0,3][7,8,6]]
Generated Nodes:
[[1,0,4][5,2,3][7,8,6]] - f(n) = 23 + 5 = 28
[[1,2,4][5,3,0][7,8,6]] - Already visited Node!
[[1,2,4][0,5,3][7,8,6]] - f(n) = 23 + 3 = 26
```

```
[[1,2,4][5,8,3][7,0,6]] - f(n) = 23 + 5 = 28
Node Chosen for Level 22 - [[7,2,3][1,5,4][8,0,6]]
Generated Nodes:
[[7,2,3][1,0,4][8,5,6]] - f(n) = 22 + 6 = 28
[[7,2,3][1,5,4][8,6,0]] - Already visited Node!
[[7,2,3][1,5,4][0,8,6]] - f(n) = 22 + 4 = 26
Node Chosen for Level 23 - [[8,2,7][4,5,6][0,3,1]]
Generated Nodes:
[[8,2,7][0,5,6][4,3,1]] - f(n) = 23 + 5 = 28
[[8,2,7][4,5,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,2][4,1,6][7,8,3]]
Generated Nodes:
[[5,0,2][4,1,6][7,8,3]] - Already visited Node!
[[4,5,2][0,1,6][7,8,3]] - f(n) = 23 + 5 = 28
Node Chosen for Level 20 - [[8,2,1][5,7,0][3,6,4]]
Generated Nodes:
[[8,2,0][5,7,1][3,6,4]] - Already visited Node!
[[8,2,1][5,0,7][3,6,4]] - f(n) = 20 + 7 = 27
[[8,2,1][5,7,4][3,6,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[0,7,2][4,5,3][8,1,6]]
Generated Nodes:
[[7,0,2][4,5,3][8,1,6]] - Already visited Node!
[[4,7,2][0,5,3][8,1,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 20 - [[5,4,8][7,2,6][3,0,1]]
Generated Nodes:
[[5,4,8][7,0,6][3,2,1]] - f(n) = 20 + 7 = 27
[[5,4,8][7,2,6][3,1,0]] - Already visited Node!
[[5,4,8][7,2,6][0,3,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[0,7,2][4,5,1][8,6,3]]
Generated Nodes:
[[7,0,2][4,5,1][8,6,3]] - Already visited Node!
```

```
[[4,7,2][0,5,1][8,6,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 20 - [[8,7,5][3,2,6][1,0,4]]
Generated Nodes:
[[8,7,5][3,0,6][1,2,4]] - f(n) = 20 + 7 = 27
[[8,7,5][3,2,6][1,4,0]] - Already visited Node!
[[8,7,5][3,2,6][0,1,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[4,5,2][7,8,6][3,0,1]]
Generated Nodes:
[[4,5,2][7,0,6][3,8,1]] - f(n) = 20 + 6 = 26
[[4,5,2][7,8,6][3,1,0]] - Already visited Node!
[[4,5,2][7,8,6][0,3,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[4,8,5][7,2,6][3,0,1]]
Generated Nodes:
[[4,8,5][7,0,6][3,2,1]] - f(n) = 20 + 7 = 27
[[4,8,5][7,2,6][3,1,0]] - Already visited Node!
[[4,8,5][7,2,6][0,3,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,4,5][1,2,6][8,0,3]]
Generated Nodes:
[[7,4,5][1,0,6][8,2,3]] - f(n) = 20 + 7 = 27
[[7,4,5][1,2,6][8,3,0]] - Already visited Node!
[[7,4,5][1,2,6][0,8,3]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,5,8][4,2,0][3,1,6]]
Generated Nodes:
[[7,5,0][4,2,8][3,1,6]] - f(n) = 20 + 7 = 27
[[7,5,8][4,0,2][3,1,6]] - Already visited Node!
[[7,5,8][4,2,6][3,1,0]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,5,8][4,1,2][3,0,6]]
Generated Nodes:
[[7,5,8][4,0,2][3,1,6]] - Already visited Node!
[[7,5,8][4,1,2][3,6,0]] - f(n) = 20 + 7 = 27
[[7,5,8][4,1,2][0,3,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,4,8][7,2,6][3,0,1]]
```

```
Generated Nodes:
[[5,4,8][7,0,6][3,2,1]] - f(n) = 20 + 7 = 27
[[5,4,8][7,2,6][3,1,0]] - Already visited Node!
[[5,4,8][7,2,6][0,3,1]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,4][3,8,0][1,7,6]]
Generated Nodes:
[[5,2,0][3,8,4][1,7,6]] - Already visited Node!
[[5,2,4][3,0,8][1,7,6]] - Already visited Node!
[[5,2,4][3,8,6][1,7,0]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[5,8,2][3,4,6][1,0,7]]
Generated Nodes:
[[5,8,2][3,0,6][1,4,7]] - f(n) = 20 + 7 = 27
[[5,8,2][3,4,6][1,7,0]] - Already visited Node!
[[5,8,2][3,4,6][0,1,7]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,8][7,3,0][1,6,4]]
Generated Nodes:
[[5,2,0][7,3,8][1,6,4]] - Already visited Node!
[[5,2,8][7,0,3][1,6,4]] - f(n) = 20 + 7 = 27
[[5,2,8][7,3,4][1,6,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,0,5][3,1,2][6,8,4]]
Generated Nodes:
[[7,5,0][3,1,2][6,8,4]] - Already visited Node!
[[0,7,5][3,1,2][6,8,4]] - f(n) = 20 + 7 = 27
[[7,1,5][3,0,2][6,8,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,1,5][3,2,0][6,8,4]]
Generated Nodes:
[[7,1,0][3,2,5][6,8,4]] - f(n) = 20 + 7 = 27
[[7,1,5][3,0,2][6,8,4]] - Already visited Node!
[[7,1,5][3,2,4][6,8,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,1,5][0,3,2][6,8,4]]
Generated Nodes:
```

[[0,1,5][7,3,2][6,8,4]] - f(n) = 20 + 7 = 27[[7,1,5][3,0,2][6,8,4]] - Already visited Node!

```
[[7,1,5][6,3,2][0,8,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,0,5][8,1,6][3,4,2]]
Generated Nodes:
[[7,5,0][8,1,6][3,4,2]] - f(n) = 20 + 7 = 27
[[0,7,5][8,1,6][3,4,2]] - f(n) = 20 + 7 = 27
[[7,1,5][8,0,6][3,4,2]] - Already visited Node!
Node Chosen for Level 20 - [[7,1,5][0,8,6][3,4,2]]
Generated Nodes:
[[0,1,5][7,8,6][3,4,2]] - f(n) = 20 + 7 = 27
[[7,1,5][8,0,6][3,4,2]] - Already visited Node!
[[7,1,5][3,8,6][0,4,2]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,1,5][8,4,6][3,0,2]]
Generated Nodes:
[[7,1,5][8,0,6][3,4,2]] - Already visited Node!
[[7,1,5][8,4,6][3,2,0]] - f(n) = 20 + 7 = 27
[[7,1,5][8,4,6][0,3,2]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,2,1][7,6,0][8,3,4]]
Generated Nodes:
[[5,2,0][7,6,1][8,3,4]] - Already visited Node!
[[5,2,1][7,0,6][8,3,4]] - f(n) = 20 + 6 = 26
[[5,2,1][7,6,4][8,3,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,4,5][1,2,6][8,0,3]]
Generated Nodes:
[[7,4,5][1,0,6][8,2,3]] - f(n) = 20 + 7 = 27
[[7,4,5][1,2,6][8,3,0]] - Already visited Node!
[[7,4,5][1,2,6][0,8,3]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[7,5,2][0,6,3][1,8,4]]
Generated Nodes:
[[0,5,2][7,6,3][1,8,4]] - f(n) = 20 + 7 = 27
[[7,5,2][6,0,3][1,8,4]] - f(n) = 20 + 7 = 27
[[7,5,2][1,6,3][0,8,4]] - Already visited Node!
Node Chosen for Level 21 - [[0,5,3][7,4,2][1,8,6]]
```

```
Generated Nodes:
[[5,0,3][7,4,2][1,8,6]] - Already visited Node!
[[7,5,3][0,4,2][1,8,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,4,3][7,0,2][1,8,6]]
Generated Nodes:
[[5,0,3][7,4,2][1,8,6]] - Already visited Node!
[[5,4,3][7,2,0][1,8,6]] - f(n) = 21 + 6 = 27
[[5,4,3][0,7,2][1,8,6]] - f(n) = 21 + 6 = 27
[[5,4,3][7,8,2][1,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,8,2][4,5,7][3,1,6]]
Generated Nodes:
[[8,0,2][4,5,7][3,1,6]] - Already visited Node!
[[4,8,2][0,5,7][3,1,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,1,2][8,5,4][7,3,6]]
Generated Nodes:
[[1,0,2][8,5,4][7,3,6]] - f(n) = 21 + 5 = 26
[[8,1,2][0,5,4][7,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[1,5,2][8,0,4][7,3,6]]
Generated Nodes:
[[1,0,2][8,5,4][7,3,6]] - f(n) = 21 + 5 = 26
[[1,5,2][8,4,0][7,3,6]] - f(n) = 21 + 6 = 27
[[1,5,2][0,8,4][7,3,6]] - Already visited Node!
[[1,5,2][8,3,4][7,0,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[0,2,4][8,5,7][3,1,6]]
Generated Nodes:
[[2,0,4][8,5,7][3,1,6]] - f(n) = 21 + 7 = 28
[[8,2,4][0,5,7][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,4][3,5,7][0,1,6]]
Generated Nodes:
[[8,2,4][0,5,7][3,1,6]] - Already visited Node!
[[8,2,4][3,5,7][1,0,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 22 - [[5,2,4][1,8,6][7,0,3]]
```

```
Generated Nodes:
[[5,2,4][1,0,6][7,8,3]] - Already visited Node!
[[5,2,4][1,8,6][7,3,0]] - Already visited Node!
[[5,2,4][1,8,6][0,7,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,4][3,1,0][7,8,6]]
Generated Nodes:
[[5,2,0][3,1,4][7,8,6]] - Already visited Node!
[[5,2,4][3,0,1][7,8,6]] - Already visited Node!
[[5,2,4][3,1,6][7,8,0]] - f(n) = 22 + 4 = 26
Node Chosen for Level 22 - [[1,2,4][5,7,6][8,0,3]]
Generated Nodes:
[[1,2,4][5,0,6][8,7,3]] - f(n) = 22 + 5 = 27
[[1,2,4][5,7,6][8,3,0]] - Already visited Node!
[[1,2,4][5,7,6][0,8,3]] - f(n) = 22 + 4 = 26
Node Chosen for Level 22 - [[1,7,2][0,4,6][5,8,3]]
Generated Nodes:
[[0,7,2][1,4,6][5,8,3]] - f(n) = 22 + 6 = 28
[[1,7,2][4,0,6][5,8,3]] - f(n) = 22 + 4 = 26
[[1,7,2][5,4,6][0,8,3]] - Already visited Node!
Node Chosen for Level 21 - [[1,7,2][8,5,3][0,6,4]]
Generated Nodes:
[[1,7,2][0,5,3][8,6,4]] - Already visited Node!
[[1,7,2][8,5,3][6,0,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 22 - [[8,2,4][5,1,6][7,0,3]]
Generated Nodes:
[[8,2,4][5,0,6][7,1,3]] - f(n) = 22 + 5 = 27
[[8,2,4][5,1,6][7,3,0]] - Already visited Node!
[[8,2,4][5,1,6][0,7,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,4][1,8,6][7,0,3]]
Generated Nodes:
[[5,2,4][1,0,6][7,8,3]] - Already visited Node!
[[5,2,4][1,8,6][7,3,0]] - Already visited Node!
```

```
[[5,2,4][1,8,6][0,7,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,7,5][4,2,6][8,0,3]]
Generated Nodes:
[[1,7,5][4,0,6][8,2,3]] - f(n) = 22 + 5 = 27
[[1,7,5][4,2,6][8,3,0]] - Already visited Node!
[[1,7,5][4,2,6][0,8,3]] - f(n) = 22 + 4 = 26
Node Chosen for Level 23 - [[1,4,2][5,0,6][7,8,3]]
Generated Nodes:
[[1,0,2][5,4,6][7,8,3]] - Already visited Node!
[[1,4,2][5,6,0][7,8,3]] - f(n) = 23 + 5 = 28
[[1,4,2][0,5,6][7,8,3]] - f(n) = 23 + 3 = 26
[[1,4,2][5,8,6][7,0,3]] - f(n) = 23 + 5 = 28
Node Chosen for Level 22 - [[7,2,1][4,5,0][8,6,3]]
Generated Nodes:
[[7,2,0][4,5,1][8,6,3]] - Already visited Node!
[[7,2,1][4,0,5][8,6,3]] - f(n) = 22 + 6 = 28
[[7,2,1][4,5,3][8,6,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 21 - [[7,8,0][4,5,2][3,1,6]]
Generated Nodes:
[[7,0,8][4,5,2][3,1,6]] - Already visited Node!
[[7,8,2][4,5,0][3,1,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[0,7,8][4,5,2][3,1,6]]
Generated Nodes:
[[7,0,8][4,5,2][3,1,6]] - Already visited Node!
[[4,7,8][0,5,2][3,1,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 24 - [[7,2,3][4,5,6][8,0,1]]
Generated Nodes:
[[7,2,3][4,0,6][8,5,1]] - f(n) = 24 + 4 = 28
[[7,2,3][4,5,6][8,1,0]] - Already visited Node!
[[7,2,3][4,5,6][0,8,1]] - f(n) = 24 + 2 = 26
Node Chosen for Level 20 - [[1,7,4][0,2,5][8,3,6]]
Generated Nodes:
```

```
[[0,7,4][1,2,5][8,3,6]] - Already visited Node!
[[1,7,4][2,0,5][8,3,6]] - f(n) = 20 + 7 = 27
[[1,7,4][8,2,5][0,3,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 21 - [[4,2,0][5,7,6][8,3,1]]
Generated Nodes:
[[4,0,2][5,7,6][8,3,1]] - Already visited Node!
[[4,2,6][5,7,0][8,3,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[4,7,2][5,3,6][0,8,1]]
Generated Nodes:
[[4,7,2][0,3,6][5,8,1]] - f(n) = 21 + 6 = 27
[[4,7,2][5,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,0][8,1,6][3,5,4]]
Generated Nodes:
[[7,0,2][8,1,6][3,5,4]] - f(n) = 21 + 7 = 28
[[7,2,6][8,1,0][3,5,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,2][3,5,8][4,1,6]]
Generated Nodes:
[[7,2,0][3,5,8][4,1,6]] - f(n) = 20 + 6 = 26
[[0,7,2][3,5,8][4,1,6]] - f(n) = 20 + 7 = 27
[[7,5,2][3,0,8][4,1,6]] - Already visited Node!
Node Chosen for Level 20 - [[2,7,4][0,5,8][3,1,6]]
Generated Nodes:
[[0,7,4][2,5,8][3,1,6]] - f(n) = 20 + 7 = 27
[[2,7,4][5,0,8][3,1,6]] - Already visited Node!
[[2,7,4][3,5,8][0,1,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,3,2][0,8,4][7,1,6]]
Generated Nodes:
[[0,3,2][5,8,4][7,1,6]] - f(n) = 20 + 7 = 27
[[5,3,2][8,0,4][7,1,6]] - f(n) = 20 + 7 = 27
[[5,3,2][7,8,4][0,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,0][3,7,6][4,5,1]]
```

```
Generated Nodes:
[[8,0,2][3,7,6][4,5,1]] - Already visited Node!
[[8,2,6][3,7,0][4,5,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[8,7,2][4,3,6][0,5,1]]
Generated Nodes:
[[8,7,2][0,3,6][4,5,1]] - Already visited Node!
[[8,7,2][4,3,6][5,0,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,2,1][8,4,6][3,5,0]]
Generated Nodes:
[[7,2,1][8,4,0][3,5,6]] - Already visited Node!
[[7,2,1][8,4,6][3,0,5]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[1,2,0][8,7,4][3,5,6]]
Generated Nodes:
[[1,0,2][8,7,4][3,5,6]] - Already visited Node!
[[1,2,4][8,7,0][3,5,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[1,7,2][8,4,6][3,5,0]]
Generated Nodes:
[[1,7,2][8,4,0][3,5,6]] - Already visited Node!
[[1,7,2][8,4,6][3,0,5]] - f(n) = 21 + 6 = 27
Node Chosen for Level 22 - [[2,7,4][0,5,6][3,8,1]]
Generated Nodes:
[[0,7,4][2,5,6][3,8,1]] - f(n) = 22 + 5 = 27
[[2,7,4][5,0,6][3,8,1]] - Already visited Node!
[[2,7,4][3,5,6][0,8,1]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[2,8,4][0,5,6][7,3,1]]
Generated Nodes:
[[0,8,4][2,5,6][7,3,1]] - f(n) = 22 + 5 = 27
[[2,8,4][5,0,6][7,3,1]] - Already visited Node!
[[2,8,4][7,5,6][0,3,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,4][0,3,6][7,1,8]]
Generated Nodes:
```

```
[[0,2,4][5,3,6][7,1,8]] - f(n) = 22 + 5 = 27
[[5,2,4][3,0,6][7,1,8]] - f(n) = 22 + 5 = 27
[[5,2,4][7,3,6][0,1,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][4,1,3][0,8,6]]
Generated Nodes:
[[7,5,2][0,1,3][4,8,6]] - f(n) = 21 + 7 = 28
[[7,5,2][4,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,6][7,0,1][3,8,4]]
Generated Nodes:
[[5,0,6][7,2,1][3,8,4]] - f(n) =
                                  21 + 7 = 28
[[5,2,6][7,1,0][3,8,4]] - f(n) =
                                  21 + 6 = 27
[[5,2,6][0,7,1][3,8,4]] - f(n) = 21 + 6 = 27
[[5,2,6][7,8,1][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,6][7,3,4][0,8,1]]
Generated Nodes:
[[5,2,6][0,3,4][7,8,1]] - f(n) = 21 + 5 = 26
[[5,2,6][7,3,4][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,6][7,4,1][0,8,3]]
Generated Nodes:
[[5,2,6][0,4,1][7,8,3]] - f(n) = 21 + 5 = 26
[[5,2,6][7,4,1][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,0][8,4,6][3,1,5]]
Generated Nodes:
[[7,0,2][8,4,6][3,1,5]] - f(n) = 21 + 7 = 28
[[7,2,6][8,4,0][3,1,5]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,4][2,5,8][3,1,6]]
Generated Nodes:
[[7,4,0][2,5,8][3,1,6]] - f(n) = 20 + 7 = 27
[[0,7,4][2,5,8][3,1,6]] - f(n) = 20 + 7 = 27
[[7,5,4][2,0,8][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,2][4,0,6][5,3,1]]
```

```
Generated Nodes:
[[8,0,2][4,7,6][5,3,1]] - f(n) = 21 + 6 = 27
[[8,7,2][4,6,0][5,3,1]] - f(n) =
                                  21 + 7 = 28
[[8,7,2][0,4,6][5,3,1]] - Already visited Node!
[[8,7,2][4,3,6][5,0,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,2,1][8,0,6][3,4,5]]
Generated Nodes:
[[7,0,1][8,2,6][3,4,5]] - f(n) = 21 + 7 = 28
[[7,2,1][8,6,0][3,4,5]] - Already visited Node!
[[7,2,1][0,8,6][3,4,5]] - f(n) = 21 + 6 = 27
[[7,2,1][8,4,6][3,0,5]] - f(n) =
                                  21 + 6 = 27
Node Chosen for Level 22 - [[7,0,4][2,5,6][3,8,1]]
Generated Nodes:
[[7,4,0][2,5,6][3,8,1]] - f(n) = 22 + 5 = 27
[[0,7,4][2,5,6][3,8,1]] - f(n) = 22 + 5 = 27
[[7,5,4][2,0,6][3,8,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,6,5][4,3,2][0,8,1]]
Generated Nodes:
[[7,6,5][0,3,2][4,8,1]] - f(n) = 21 + 7 = 28
[[7,6,5][4,3,2][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,0][7,3,6][1,4,8]]
Generated Nodes:
[[5,0,2][7,3,6][1,4,8]] - Already visited Node!
[[5,2,6][7,3,0][1,4,8]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,5,2][1,3,6][4,8,0]]
Generated Nodes:
[[7,5,2][1,3,0][4,8,6]] - f(n) = 21 + 7 = 28
[[7,5,2][1,3,6][4,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,0][7,4,6][3,1,8]]
Generated Nodes:
[[5,0,2][7,4,6][3,1,8]] - Already visited Node!
[[5,2,6][7,4,0][3,1,8]] - f(n) = 21 + 7 = 28
```

```
Node Chosen for Level 20 - [[8,7,4][2,5,0][3,1,6]]
Generated Nodes:
[[8,7,0][2,5,4][3,1,6]] - f(n) = 20 + 7 = 27
[[8,7,4][2,0,5][3,1,6]] - Already visited Node!
[[8,7,4][2,5,6][3,1,0]] - f(n) = 20 + 6 = 26
Node Chosen for Level 20 - [[4,0,2][7,5,8][3,1,6]]
Generated Nodes:
[[4,2,0][7,5,8][3,1,6]] - f(n) = 20 + 6 = 26
[[0,4,2][7,5,8][3,1,6]] - f(n) = 20 + 7 = 27
[[4,5,2][7,0,8][3,1,6]] - Already visited Node!
Node Chosen for Level 20 - [[4,8,5][0,1,2][7,3,6]]
Generated Nodes:
[[0,8,5][4,1,2][7,3,6]] - f(n) = 20 + 6 = 26
[[4,8,5][1,0,2][7,3,6]] - f(n) = 20 + 7 = 27
[[4,8,5][7,1,2][0,3,6]] - Already visited Node!
Node Chosen for Level 20 - [[7,1,4][8,5,0][3,6,2]]
Generated Nodes:
[[7,1,0][8,5,4][3,6,2]] - f(n) = 20 + 7 = 27
[[7,1,4][8,0,5][3,6,2]] - Already visited Node!
[[7,1,4][8,5,2][3,6,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,4,8][0,1,2][7,3,6]]
Generated Nodes:
[[0,4,8][5,1,2][7,3,6]] - f(n) = 20 + 7 = 27
[[5,4,8][1,0,2][7,3,6]] - f(n) = 20 + 7 = 27
[[5,4,8][7,1,2][0,3,6]] - Already visited Node!
Node Chosen for Level 20 - [[5,8,2][0,6,1][7,3,4]]
Generated Nodes:
[[0,8,2][5,6,1][7,3,4]] - f(n) = 20 + 7 = 27
[[5,8,2][6,0,1][7,3,4]] - f(n) = 20 + 7 = 27
[[5,8,2][7,6,1][0,3,4]] - Already visited Node!
```

Node Chosen for Level 20 - [[7,0,2][1,5,8][6,3,4]]

```
[[7,2,0][1,5,8][6,3,4]] - f(n) = 20 + 6 = 26
[[0,7,2][1,5,8][6,3,4]] - f(n) = 20 + 7 = 27
[[7,5,2][1,0,8][6,3,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,2][6,5,8][3,1,4]]
Generated Nodes:
[[7,2,0][6,5,8][3,1,4]] - f(n) = 20 + 6 = 26
[[0,7,2][6,5,8][3,1,4]] - f(n) = 20 + 7 = 27
[[7,5,2][6,0,8][3,1,4]] - Already visited Node!
Node Chosen for Level 20 - [[1,8,5][0,7,2][3,6,4]]
Generated Nodes:
[[0,8,5][1,7,2][3,6,4]] - Already visited Node!
[[1,8,5][7,0,2][3,6,4]] - Already visited Node!
[[1,8,5][3,7,2][0,6,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[1,0,5][7,6,2][8,3,4]]
Generated Nodes:
[[1,5,0][7,6,2][8,3,4]] - f(n) = 20 + 7 = 27
[[0,1,5][7,6,2][8,3,4]] - Already visited Node!
[[1,6,5][7,0,2][8,3,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,8,2][0,6,1][7,3,4]]
Generated Nodes:
[[0,8,2][5,6,1][7,3,4]] - f(n) = 20 + 7 = 27
[[5,8,2][6,0,1][7,3,4]] - f(n) = 20 + 7 = 27
[[5,8,2][7,6,1][0,3,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,2][3,5,8][6,4,1]]
Generated Nodes:
[[7,2,0][3,5,8][6,4,1]] - f(n) = 20 + 6 = 26
[[0,7,2][3,5,8][6,4,1]] - f(n) = 20 + 7 = 27
[[7,5,2][3,0,8][6,4,1]] - Already visited Node!
Node Chosen for Level 20 - [[1,7,5][0,3,2][8,6,4]]
Generated Nodes:
[[0,7,5][1,3,2][8,6,4]] - Already visited Node!
[[1,7,5][3,0,2][8,6,4]] - f(n) = 20 + 7 = 27
[[1,7,5][8,3,2][0,6,4]] - f(n) = 20 + 7 = 27
```

```
Node Chosen for Level 21 - [[4,2,0][5,7,6][8,3,1]]
Generated Nodes:
[[4,0,2][5,7,6][8,3,1]] - Already visited Node!
[[4,2,6][5,7,0][8,3,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,4][3,8,6][1,7,0]]
Generated Nodes:
[[5,2,4][3,8,0][1,7,6]] - Already visited Node!
[[5,2,4][3,8,6][1,0,7]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,4,5][3,0,6][2,8,1]]
Generated Nodes:
[[7,0,5][3,4,6][2,8,1]] - f(n) = 21 + 6 = 27
[[7,4,5][3,6,0][2,8,1]] - f(n) = 21 + 7 = 28
[[7,4,5][0,3,6][2,8,1]] - f(n) = 21 + 6 = 27
[[7,4,5][3,8,6][2,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[4,2,5][7,0,6][8,3,1]]
Generated Nodes:
[[4,0,5][7,2,6][8,3,1]] - Already visited Node!
[[4,2,5][7,6,0][8,3,1]] - f(n) = 21 + 7 = 28
[[4,2,5][0,7,6][8,3,1]] - f(n) = 21 + 6 = 27
[[4,2,5][7,3,6][8,0,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,4,5][2,3,6][0,8,1]]
Generated Nodes:
[[7,4,5][0,3,6][2,8,1]] - f(n) = 21 + 6 = 27
[[7,4,5][2,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,0][7,1,6][8,4,3]]
Generated Nodes:
[[5,0,2][7,1,6][8,4,3]] - Already visited Node!
[[5,2,6][7,1,0][8,4,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[8,1,2][5,4,6][7,3,0]]
Generated Nodes:
[[8,1,2][5,4,0][7,3,6]] - Already visited Node!
[[8,1,2][5,4,6][7,0,3]] - f(n) = 21 + 6 = 27
```

```
Node Chosen for Level 21 - [[5,2,1][7,0,4][3,8,6]]
Generated Nodes:
[[5,0,1][7,2,4][3,8,6]] - f(n) =
                                  21 + 7 = 28
[[5,2,1][7,4,0][3,8,6]] - f(n) =
                                  21 + 6 = 27
[[5,2,1][0,7,4][3,8,6]] - f(n) =
                                  21 + 6 = 27
[[5,2,1][7,8,4][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,0][7,3,1][6,8,4]]
Generated Nodes:
[[5,0,2][7,3,1][6,8,4]] - Already visited Node!
[[5,2,1][7,3,0][6,8,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,2,0][7,1,6][8,4,3]]
Generated Nodes :
[[5,0,2][7,1,6][8,4,3]] - Already visited Node!
[[5,2,6][7,1,0][8,4,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[8,4,2][0,5,6][7,3,1]]
Generated Nodes:
[[0,4,2][8,5,6][7,3,1]] - f(n) = 22 + 5 = 27
[[8,4,2][5,0,6][7,3,1]] - Already visited Node!
[[8,4,2][7,5,6][0,3,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[3,2,4][0,5,7][1,8,6]]
Generated Nodes:
[[0,2,4][3,5,7][1,8,6]] - f(n) = 22 + 5 = 27
[[3,2,4][5,0,7][1,8,6]] - Already visited Node!
[[3,2,4][1,5,7][0,8,6]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[1,2,4][0,5,7][8,3,6]]
Generated Nodes:
[[0,2,4][1,5,7][8,3,6]] - f(n) = 22 + 6 = 28
[[1,2,4][5,0,7][8,3,6]] - Already visited Node!
[[1,2,4][8,5,7][0,3,6]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[8,0,2][4,5,6][3,7,1]]
Generated Nodes:
```

```
[[8,2,0][4,5,6][3,7,1]] - f(n) = 22 + 4 = 26
[[0,8,2][4,5,6][3,7,1]] - f(n) = 22 + 5 = 27
[[8,5,2][4,0,6][3,7,1]] - Already visited Node!
Node Chosen for Level 22 - [[8,2,4][0,5,1][7,3,6]]
Generated Nodes:
[[0,2,4][8,5,1][7,3,6]] - f(n) = 22 + 5 = 27
[[8,2,4][5,0,1][7,3,6]] - Already visited Node!
[[8,2,4][7,5,1][0,3,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[8,2,4][0,5,6][3,7,1]]
Generated Nodes:
[[0,2,4][8,5,6][3,7,1]] - f(n) = 22 + 5 = 27
[[8,2,4][5,0,6][3,7,1]] - Already visited Node!
[[8,2,4][3,5,6][0,7,1]] - f(n) = 22 + 5 = 27
Node Chosen for Level 23 - [[1,3,2][5,4,6][7,8,0]]
Generated Nodes:
[[1,3,2][5,4,0][7,8,6]] - Already visited Node!
[[1,3,2][5,4,6][7,0,8]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[4,2,0][5,3,6][7,8,1]]
Generated Nodes:
[[4,0,2][5,3,6][7,8,1]] - Already visited Node!
[[4,2,6][5,3,0][7,8,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[5,2,0][3,4,6][7,8,1]]
Generated Nodes:
[[5,0,2][3,4,6][7,8,1]] - Already visited Node!
[[5,2,6][3,4,0][7,8,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[5,2,4][3,1,6][7,8,0]]
Generated Nodes:
[[5,2,4][3,1,0][7,8,6]] - Already visited Node!
[[5,2,4][3,1,6][7,0,8]] - f(n) = 23 + 5 = 28
Node Chosen for Level 24 - [[1,2,4][0,5,3][7,8,6]]
Generated Nodes:
```

```
[[0,2,4][1,5,3][7,8,6]] - f(n) = 24 + 4 = 28
[[1,2,4][5,0,3][7,8,6]] - Already visited Node!
[[1,2,4][7,5,3][0,8,6]] - f(n) = 24 + 4 = 28
Node Chosen for Level 23 - [[7,2,3][1,5,4][0,8,6]]
Generated Nodes:
[[7,2,3][0,5,4][1,8,6]] - f(n) = 23 + 4 = 27
[[7,2,3][1,5,4][8,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[4,5,2][7,0,6][3,8,1]]
Generated Nodes:
[[4,0,2][7,5,6][3,8,1]] - f(n) =
                                  21 + 5 = 26
[[4,5,2][7,6,0][3,8,1]] - f(n) =
                                  21 + 7 = 28
[[4,5,2][0,7,6][3,8,1]] - f(n) = 21 + 6 = 27
[[4,5,2][7,8,6][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][1,2,6][0,8,3]]
Generated Nodes:
[[7,4,5][0,2,6][1,8,3]] - f(n) = 21 + 6 = 27
[[7,4,5][1,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,8][4,2,6][3,1,0]]
Generated Nodes:
[[7,5,8][4,2,0][3,1,6]] - Already visited Node!
[[7,5,8][4,2,6][3,0,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,2,4][3,8,6][1,7,0]]
Generated Nodes:
[[5,2,4][3,8,0][1,7,6]] - Already visited Node!
[[5,2,4][3,8,6][1,0,7]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,2,1][7,0,6][8,3,4]]
Generated Nodes:
[[5,0,1][7,2,6][8,3,4]] - f(n) = 21 + 7 = 28
[[5,2,1][7,6,0][8,3,4]] - Already visited Node!
[[5,2,1][0,7,6][8,3,4]] - f(n) = 21 + 6 = 27
[[5,2,1][7,3,6][8,0,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,4,5][1,2,6][0,8,3]]
```

```
Generated Nodes:
[[7,4,5][0,2,6][1,8,3]] - f(n) = 21 + 6 = 27
[[7,4,5][1,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 22 - [[1,0,2][8,5,4][7,3,6]]
Generated Nodes:
[[1,2,0][8,5,4][7,3,6]] - f(n) = 22 + 4 = 26
[[0,1,2][8,5,4][7,3,6]] - Already visited Node!
[[1,5,2][8,0,4][7,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[1,0,2][8,5,4][7,3,6]]
Generated Nodes:
[[1,2,0][8,5,4][7,3,6]] - f(n) = 22 + 4 = 26
[[0,1,2][8,5,4][7,3,6]] - Already visited Node!
[[1,5,2][8,0,4][7,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,1,6][7,8,0]]
Generated Nodes:
[[5,2,4][3,1,0][7,8,6]] - Already visited Node!
[[5,2,4][3,1,6][7,0,8]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[1,2,4][5,7,6][0,8,3]]
Generated Nodes:
[[1,2,4][0,7,6][5,8,3]] - f(n) = 23 + 4 = 27
[[1,2,4][5,7,6][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,2][4,0,6][5,8,3]]
Generated Nodes:
[[1,0,2][4,7,6][5,8,3]] - f(n) = 23 + 4 = 27
[[1,7,2][4,6,0][5,8,3]] - f(n) = 23 + 5 = 28
[[1,7,2][0,4,6][5,8,3]] - Already visited Node!
[[1,7,2][4,8,6][5,0,3]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[1,7,5][4,2,6][0,8,3]]
Generated Nodes:
[[1,7,5][0,2,6][4,8,3]] - f(n) = 23 + 5 = 28
[[1,7,5][4,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[1,4,2][0,5,6][7,8,3]]
```

```
Generated Nodes:
[[0,4,2][1,5,6][7,8,3]] - f(n) = 24 + 4 = 28
[[1,4,2][5,0,6][7,8,3]] - Already visited Node!
[[1,4,2][7,5,6][0,8,3]] - f(n) = 24 + 4 = 28
Node Chosen for Level 25 - [[7,2,3][4,5,6][0,8,1]]
Generated Nodes:
[[7,2,3][0,5,6][4,8,1]] - f(n) = 25 + 3 = 28
[[7,2,3][4,5,6][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,0][3,5,8][4,1,6]]
Generated Nodes:
[[7,0,2][3,5,8][4,1,6]] - Already visited Node!
[[7,2,8][3,5,0][4,1,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 22 - [[5,2,6][0,3,4][7,8,1]]
Generated Nodes:
[[0,2,6][5,3,4][7,8,1]] - f(n) = 22 + 5 = 27
[[5,2,6][3,0,4][7,8,1]] - f(n) = 22 + 5 = 27
[[5,2,6][7,3,4][0,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][0,4,1][7,8,3]]
Generated Nodes:
[[0,2,6][5,4,1][7,8,3]] - f(n) = 22 + 5 = 27
[[5,2,6][4,0,1][7,8,3]] - f(n) = 22 + 4 = 26
[[5,2,6][7,4,1][0,8,3]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,4][2,5,6][3,1,0]]
Generated Nodes:
[[8,7,4][2,5,0][3,1,6]] - Already visited Node!
[[8,7,4][2,5,6][3,0,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[4,2,0][7,5,8][3,1,6]]
Generated Nodes:
[[4,0,2][7,5,8][3,1,6]] - Already visited Node!
[[4,2,8][7,5,0][3,1,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[0,8,5][4,1,2][7,3,6]]
```

```
Generated Nodes:
[[8,0,5][4,1,2][7,3,6]] - f(n) = 21 + 6 = 27
[[4,8,5][0,1,2][7,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,0][1,5,8][6,3,4]]
Generated Nodes:
[[7,0,2][1,5,8][6,3,4]] - Already visited Node!
[[7,2,8][1,5,0][6,3,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,2,0][6,5,8][3,1,4]]
Generated Nodes:
[[7,0,2][6,5,8][3,1,4]] - Already visited Node!
[[7,2,8][6,5,0][3,1,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,2,0][3,5,8][6,4,1]]
Generated Nodes:
[[7,0,2][3,5,8][6,4,1]] - Already visited Node!
[[7,2,8][3,5,0][6,4,1]] - f(n) = 21 + 6 = 27
Node Chosen for Level 23 - [[8,2,0][4,5,6][3,7,1]]
Generated Nodes:
[[8,0,2][4,5,6][3,7,1]] - Already visited Node!
[[8,2,6][4,5,0][3,7,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 22 - [[4,0,2][7,5,6][3,8,1]]
Generated Nodes:
[[4,2,0][7,5,6][3,8,1]] - f(n) = 22 + 4 = 26
[[0,4,2][7,5,6][3,8,1]] - f(n) = 22 + 5 = 27
[[4,5,2][7,0,6][3,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[1,2,0][8,5,4][7,3,6]]
Generated Nodes:
[[1,0,2][8,5,4][7,3,6]] - Already visited Node!
[[1,2,4][8,5,0][7,3,6]] - f(n) = 23 + 4 = 27
Node Chosen for Level 23 - [[1,2,0][8,5,4][7,3,6]]
```

```
[[1,0,2][8,5,4][7,3,6]] - Already visited Node!
[[1,2,4][8,5,0][7,3,6]] - f(n) = 23 + 4 = 27
Node Chosen for Level 23 - [[5,2,6][4,0,1][7,8,3]]
Generated Nodes:
[[5,0,6][4,2,1][7,8,3]] - f(n) = 23 + 5 = 28
[[5,2,6][4,1,0][7,8,3]] - f(n) = 23 + 4 = 27
[[5,2,6][0,4,1][7,8,3]] - Already visited Node!
[[5,2,6][4,8,1][7,0,3]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[4,2,0][7,5,6][3,8,1]]
Generated Nodes:
[[4,0,2][7,5,6][3,8,1]] - Already visited Node!
[[4,2,6][7,5,0][3,8,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 20 - [[4,7,2][5,6,0][8,3,1]]
Generated Nodes:
[[4,7,0][5,6,2][8,3,1]] - f(n) = 20 + 8 = 28
[[4,7,2][5,0,6][8,3,1]] - Already visited Node!
[[4,7,2][5,6,1][8,3,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,0,6][8,2,1][3,5,4]]
Generated Nodes:
[[7,6,0][8,2,1][3,5,4]] - f(n) = 20 + 8 = 28
[[0,7,6][8,2,1][3,5,4]] - f(n) = 20 + 8 = 28
[[7,2,6][8,0,1][3,5,4]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,2][3,6,0][4,5,1]]
Generated Nodes:
[[8,7,0][3,6,2][4,5,1]] - f(n) = 20 + 8 = 28
[[8,7,2][3,0,6][4,5,1]] - Already visited Node!
[[8,7,2][3,6,1][4,5,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,0,1][8,2,4][3,5,6]]
Generated Nodes:
[[7,1,0][8,2,4][3,5,6]] - f(n) = 20 + 8 = 28
[[0,7,1][8,2,4][3,5,6]] - f(n) = 20 + 8 = 28
[[7,2,1][8,0,4][3,5,6]] - Already visited Node!
```

```
Node Chosen for Level 22 - [[7,0,4][5,2,6][1,8,3]]
Generated Nodes:
[[7,4,0][5,2,6][1,8,3]] - f(n) = 22 + 6 = 28
[[0,7,4][5,2,6][1,8,3]] - f(n) = 22 + 6 = 28
[[7,2,4][5,0,6][1,8,3]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,4][5,6,0][1,8,3]]
Generated Nodes:
[[7,2,0][5,6,4][1,8,3]] - f(n) = 22 + 6 = 28
[[7,2,4][5,0,6][1,8,3]] - Already visited Node!
[[7,2,4][5,6,3][1,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,4][5,8,6][1,0,3]]
Generated Nodes:
[[7,2,4][5,0,6][1,8,3]] - Already visited Node!
[[7,2,4][5,8,6][1,3,0]] - f(n) = 22 + 6 = 28
[[7,2,4][5,8,6][0,1,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 20 - [[7,0,8][3,2,5][1,6,4]]
Generated Nodes:
[[7,8,0][3,2,5][1,6,4]] - Already visited Node!
[[0,7,8][3,2,5][1,6,4]] - f(n) = 20 + 8 = 28
[[7,2,8][3,0,5][1,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,6][3,0,5][1,4,8]]
Generated Nodes:
[[7,0,6][3,2,5][1,4,8]] - f(n) = 21 + 8 = 29
[[7,2,6][3,5,0][1,4,8]] - Already visited Node! [[7,2,6][0,3,5][1,4,8]] - f(n) = 21 + 7 = 28
[[7,2,6][3,4,5][1,0,8]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,2,6][1,0,5][8,4,3]]
Generated Nodes:
[[7,0,6][1,2,5][8,4,3]] - f(n) = 21 + 8 = 29
[[7,2,6][1,5,0][8,4,3]] - Already visited Node!
[[7,2,6][0,1,5][8,4,3]] - f(n) = 21 + 7 = 28
```

Node Chosen for Level 23 - [[7,2,6][4,0,5][1,8,3]]

[[7,2,6][1,4,5][8,0,3]] - f(n) = 21 + 7 = 28

```
Generated Nodes:
-----
[[7,0,6][4,2,5][1,8,3]] - f(n) = 23 + 6 = 29
[[7,2,6][4,5,0][1,8,3]] - Already visited Node!
[[7,2,6][0,4,5][1,8,3]] - f(n) = 23 + 6 = 29
```

Node Chosen for Level 20 - [[7,5,2][0,4,3][8,1,6]]

[[7,2,6][4,8,5][1,0,3]] - f(n) = 23 + 6 = 29

Generated Nodes:

```
[[0,5,2][7,4,3][8,1,6]] - f(n) = 20 + 8 = 28

[[7,5,2][4,0,3][8,1,6]] - Already visited Node!

[[7,5,2][8,4,3][0,1,6]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[5,0,6][7,2,8][3,4,1]]

Generated Nodes:

```
[[5,6,0][7,2,8][3,4,1]] - f(n) = 20 + 8 = 28

[[0,5,6][7,2,8][3,4,1]] - f(n) = 20 + 8 = 28

[[5,2,6][7,0,8][3,4,1]] - Already visited Node!
```

Node Chosen for Level 20 - [[7,5,2][3,6,1][4,0,8]]

Generated Nodes:

```
[[7,5,2][3,0,1][4,6,8]] - f(n) = 20 + 8 = 28

[[7,5,2][3,6,1][4,8,0]] - Already visited Node!

[[7,5,2][3,6,1][0,4,8]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[5,0,6][7,2,4][8,3,1]]

Generated Nodes:

```
[[5,6,0][7,2,4][8,3,1]] - f(n) = 20 + 8 = 28

[[0,5,6][7,2,4][8,3,1]] - f(n) = 20 + 8 = 28

[[5,2,6][7,0,4][8,3,1]] - Already visited Node!
```

Node Chosen for Level 22 - [[7,2,6][3,5,1][4,0,8]]

Generated Nodes:

```
[[7,2,6][3,0,1][4,5,8]] - f(n) = 22 + 7 = 29

[[7,2,6][3,5,1][4,8,0]] - Already visited Node!

[[7,2,6][3,5,1][0,4,8]] - f(n) = 22 + 6 = 28
```

Node Chosen for Level 20 - [[2,0,6][7,8,5][3,4,1]]

$$[[2,6,0][7,8,5][3,4,1]] - f(n) = 20 + 8 = 28$$

```
[[0,2,6][7,8,5][3,4,1]] - Already visited Node!
[[2,8,6][7,0,5][3,4,1]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,7,2][5,4,0][3,1,6]]
Generated Nodes:
[[8,7,0][5,4,2][3,1,6]] - Already visited Node!
[[8,7,2][5,0,4][3,1,6]] - Already visited Node!
[[8,7,2][5,4,6][3,1,0]] - Already visited Node!
Node Chosen for Level 20 - [[2,0,1][7,8,5][3,6,4]]
Generated Nodes:
[[2,1,0][7,8,5][3,6,4]] - f(n) = 20 + 8 = 28
[[0,2,1][7,8,5][3,6,4]] - Already visited Node!
[[2,8,1][7,0,5][3,6,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[2,0,4][7,1,5][8,3,6]]
Generated Nodes:
[[2,4,0][7,1,5][8,3,6]] - f(n) = 20 + 8 = 28
[[0,2,4][7,1,5][8,3,6]] - Already visited Node!
[[2,1,4][7,0,5][8,3,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 21 - [[4,7,2][8,0,6][3,5,1]]
Generated Nodes:
[[4,0,2][8,7,6][3,5,1]] - f(n) = 21 + 7 = 28
[[4,7,2][8,6,0][3,5,1]] - f(n) =
                                  21 + 8 = 29
[[4,7,2][0,8,6][3,5,1]] - f(n) = 21 + 7 = 28
[[4,7,2][8,5,6][3,0,1]] - Already visited Node!
Node Chosen for Level 20 - [[4,7,5][0,6,2][8,3,1]]
Generated Nodes:
[[0,7,5][4,6,2][8,3,1]] - Already visited Node!
[[4,7,5][6,0,2][8,3,1]] - f(n) = 20 + 8 = 28
[[4,7,5][8,6,2][0,3,1]] - f(n) =
                                  20 + 8 = 28
Node Chosen for Level 20 - [[7,6,5][0,4,2][8,3,1]]
Generated Nodes:
[[0,6,5][7,4,2][8,3,1]] - f(n) = 20 + 8 = 28
[[7,6,5][4,0,2][8,3,1]] - Already visited Node!
[[7,6,5][8,4,2][0,3,1]] - Already visited Node!
```

```
Node Chosen for Level 20 - [[7,5,2][0,4,1][8,6,3]]
Generated Nodes:
[[0,5,2][7,4,1][8,6,3]] - f(n) = 20 + 8 = 28
[[7,5,2][4,0,1][8,6,3]] - Already visited Node!
[[7,5,2][8,4,1][0,6,3]] - f(n) = 20 + 8 = 28
Node Chosen for Level 22 - [[2,0,4][7,5,6][3,1,8]]
Generated Nodes:
[[2,4,0][7,5,6][3,1,8]] - f(n) = 22 + 6 = 28
[[0,2,4][7,5,6][3,1,8]] - Already visited Node!
[[2,5,4][7,0,6][3,1,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 21 - [[7,2,6][5,0,1][8,3,4]]
Generated Nodes:
[[7,0,6][5,2,1][8,3,4]] - f(n) = 21 + 8 = 29
[[7,2,6][5,1,0][8,3,4]] - f(n) = 21 + 7 = 28
[[7,2,6][0,5,1][8,3,4]] - Already visited Node!
[[7,2,6][5,3,1][8,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 20 - [[5,4,2][7,3,0][8,1,6]]
Generated Nodes:
[[5,4,0][7,3,2][8,1,6]] - f(n) = 20 + 8 = 28
[[5,4,2][7,0,3][8,1,6]] - f(n) = 20 + 8 = 28
[[5,4,2][7,3,6][8,1,0]] - Already visited Node!
Node Chosen for Level 20 - [[5,0,4][3,2,8][1,7,6]]
Generated Nodes:
[[5,4,0][3,2,8][1,7,6]] - f(n) = 20 + 8 = 28
[[0,5,4][3,2,8][1,7,6]] - f(n) = 20 + 8 = 28
[[5,2,4][3,0,8][1,7,6]] - Already visited Node!
Node Chosen for Level 20 - [[5,0,2][7,1,4][3,6,8]]
Generated Nodes:
[[5,2,0][7,1,4][3,6,8]] - Already visited Node!
[[0,5,2][7,1,4][3,6,8]] - f(n) = 20 + 8 = 28
[[5,1,2][7,0,4][3,6,8]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[5,0,4][7,2,1][3,6,8]]

```
[[5,4,0][7,2,1][3,6,8]] - f(n) = 20 + 8 = 28
[[0,5,4][7,2,1][3,6,8]] - f(n) = 20 + 8 = 28
[[5,2,4][7,0,1][3,6,8]] - Already visited Node!
Node Chosen for Level 20 - [[3,7,5][1,4,2][8,0,6]]
Generated Nodes:
[[3,7,5][1,0,2][8,4,6]] - f(n) = 20 + 8 = 28
[[3,7,5][1,4,2][8,6,0]] - f(n) = 20 + 8 = 28
[[3,7,5][1,4,2][0,8,6]] - Already visited Node!
Node Chosen for Level 20 - [[5,3,2][1,7,4][8,0,6]]
Generated Nodes:
[[5,3,2][1,0,4][8,7,6]] - f(n) = 20 + 8 = 28
[[5,3,2][1,7,4][8,6,0]] - f(n) = 20 + 8 = 28
[[5,3,2][1,7,4][0,8,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,1][5,0,4][8,3,6]]
Generated Nodes:
[[7,0,1][5,2,4][8,3,6]] - f(n) = 21 + 8 = 29
[[7,2,1][5,4,0][8,3,6]] - f(n) = 21 + 7 = 28
[[7,2,1][0,5,4][8,3,6]] - Already visited Node!
[[7,2,1][5,3,4][8,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 20 - [[8,5,2][0,4,7][3,1,6]]
Generated Nodes:
[[0,5,2][8,4,7][3,1,6]] - f(n) = 20 + 8 = 28
[[8,5,2][4,0,7][3,1,6]] - Already visited Node!
[[8,5,2][3,4,7][0,1,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[4,8,7][0,2,5][3,1,6]]
Generated Nodes:
[[0,8,7][4,2,5][3,1,6]] - Already visited Node!
[[4,8,7][2,0,5][3,1,6]] - f(n) = 20 + 8 = 28
[[4,8,7][3,2,5][0,1,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,7,5][0,4,1][3,6,2]]
Generated Nodes:
[[0,7,5][8,4,1][3,6,2]] - Already visited Node!
[[8,7,5][4,0,1][3,6,2]] - Already visited Node!
```

```
[[8,7,5][3,4,1][0,6,2]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,5,6][8,4,0][3,2,1]]
Generated Nodes:
[[7,5,0][8,4,6][3,2,1]] - Already visited Node!
[[7,5,6][8,0,4][3,2,1]] - f(n) = 20 + 8 = 28
[[7,5,6][8,4,1][3,2,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,4,5][2,6,0][8,3,1]]
Generated Nodes:
[[7,4,0][2,6,5][8,3,1]] - f(n) = 20 + 8 = 28
[[7,4,5][2,0,6][8,3,1]] - Already visited Node!
[[7,4,5][2,6,1][8,3,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[2,0,4][5,7,1][8,3,6]]
Generated Nodes:
[[2,4,0][5,7,1][8,3,6]] - f(n) = 20 + 8 = 28
[[0,2,4][5,7,1][8,3,6]] - Already visited Node!
[[2,7,4][5,0,1][8,3,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 21 - [[1,7,2][8,0,5][3,6,4]]
Generated Nodes:
[[1,0,2][8,7,5][3,6,4]] - f(n) = 21 + 7 = 28
[[1,7,2][8,5,0][3,6,4]] - Already visited Node!
[[1,7,2][0,8,5][3,6,4]] - f(n) = 21 + 7 = 28
[[1,7,2][8,6,5][3,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[5,2,4][8,3,0][7,1,6]]
Generated Nodes:
[[5,2,0][8,3,4][7,1,6]] - f(n) = 22 + 6 = 28
[[5,2,4][8,0,3][7,1,6]] - f(n) = 22 + 6 = 28
[[5,2,4][8,3,6][7,1,0]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,8][3,0,4][1,5,6]]
Generated Nodes:
[[7,0,8][3,2,4][1,5,6]] - f(n) = 21 + 8 = 29
[[7,2,8][3,4,0][1,5,6]] - f(n) = 21 + 7 = 28
[[7,2,8][0,3,4][1,5,6]] - f(n) = 21 + 7 = 28
[[7,2,8][3,5,4][1,0,6]] - Already visited Node!
```

```
Node Chosen for Level 21 - [[3,7,2][5,0,6][1,4,8]]
Generated Nodes:
[[3,0,2][5,7,6][1,4,8]] - f(n) = 21 + 7 = 28
[[3,7,2][5,6,0][1,4,8]] - f(n) = 21 + 8 = 29
[[3,7,2][0,5,6][1,4,8]] - Already visited Node!
[[3,7,2][5,4,6][1,0,8]] - Already visited Node!
Node Chosen for Level 20 - [[8,0,4][5,2,7][3,1,6]]
Generated Nodes:
[[8,4,0][5,2,7][3,1,6]] - f(n) = 20 + 8 = 28
[[0,8,4][5,2,7][3,1,6]] - f(n) = 20 + 8 = 28
[[8,2,4][5,0,7][3,1,6]] - Already visited Node!
Node Chosen for Level 20 - [[5,0,1][7,2,8][3,6,4]]
Generated Nodes:
[[5,1,0][7,2,8][3,6,4]] - f(n) = 20 + 8 = 28
[[0,5,1][7,2,8][3,6,4]] - f(n) = 20 + 8 = 28
[[5,2,1][7,0,8][3,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,5,2][3,1,4][6,0,8]]
Generated Nodes:
[[7,5,2][3,0,4][6,1,8]] - f(n) = 20 + 8 = 28
[[7,5,2][3,1,4][6,8,0]] - Already visited Node!
[[7,5,2][3,1,4][0,6,8]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,1,2][7,6,0][8,4,3]]
Generated Nodes:
[[5,1,0][7,6,2][8,4,3]] - f(n) = 20 + 8 = 28
[[5,1,2][7,0,6][8,4,3]] - Already visited Node!
[[5,1,2][7,6,3][8,4,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 21 - [[5,2,4][1,3,8][0,7,6]]
Generated Nodes:
[[5,2,4][0,3,8][1,7,6]] - Already visited Node!
[[5,2,4][1,3,8][7,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,2][5,0,1][6,8,4]]
Generated Nodes:
```

```
[[3,0,2][5,7,1][6,8,4]] - f(n) = 21 + 7 = 28
[[3,7,2][5,1,0][6,8,4]] - f(n) = 21 + 7 = 28
[[3,7,2][0,5,1][6,8,4]] - Already visited Node!
[[3,7,2][5,8,1][6,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[4,5,2][0,8,6][7,3,1]]
Generated Nodes:
[[0,5,2][4,8,6][7,3,1]] - Already visited Node!
[[4,5,2][8,0,6][7,3,1]] - f(n) = 22 + 6 = 28
[[4,5,2][7,8,6][0,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,8,2][4,3,0][7,1,6]]
Generated Nodes:
[[5,8,0][4,3,2][7,1,6]] - f(n) = 22 + 6 = 28
[[5,8,2][4,0,3][7,1,6]] - f(n) = 22 + 6 = 28
[[5,8,2][4,3,6][7,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,1][3,5,4][6,0,8]]
Generated Nodes:
[[7,2,1][3,0,4][6,5,8]] - f(n) = 22 + 7 = 29
[[7,2,1][3,5,4][6,8,0]] - Already visited Node!
[[7,2,1][3,5,4][0,6,8]] - f(n) = 22 + 6 = 28
Node Chosen for Level 21 - [[0,7,2][1,3,4][5,8,6]]
Generated Nodes:
[[7,0,2][1,3,4][5,8,6]] - f(n) = 21 + 7 = 28
[[1,7,2][0,3,4][5,8,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][1,4,6][0,7,3]]
Generated Nodes:
[[5,8,2][0,4,6][1,7,3]] - f(n) = 21 + 7 = 28
[[5,8,2][1,4,6][7,0,3]] - Already visited Node!
Node Chosen for Level 22 - [[1,3,2][5,8,4][7,0,6]]
Generated Nodes:
[[1,3,2][5,0,4][7,8,6]] - Already visited Node!
[[1,3,2][5,8,4][7,6,0]] - f(n) = 22 + 6 = 28
[[1,3,2][5,8,4][0,7,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,7,2][0,5,6][3,1,8]]
```

```
Generated Nodes:
[[0,7,2][4,5,6][3,1,8]] - Already visited Node!
[[4,7,2][5,0,6][3,1,8]] - f(n) = 22 + 7 = 29
[[4,7,2][3,5,6][0,1,8]] - f(n) = 22 + 6 = 28
Node Chosen for Level 21 - [[7,2,1][6,0,5][8,3,4]]
Generated Nodes:
[[7,0,1][6,2,5][8,3,4]] - f(n) = 21 + 8 = 29
[[7,2,1][6,5,0][8,3,4]] - Already visited Node!
[[7,2,1][0,6,5][8,3,4]] - Already visited Node!
[[7,2,1][6,3,5][8,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,1,5][4,7,2][8,3,6]]
Generated Nodes:
[[1,0,5][4,7,2][8,3,6]] - Already visited Node!
[[4,1,5][0,7,2][8,3,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[5,4,2][3,6,0][7,8,1]]
Generated Nodes:
[[5,4,0][3,6,2][7,8,1]] - f(n) = 22 + 6 = 28
[[5,4,2][3,0,6][7,8,1]] - Already visited Node!
[[5,4,2][3,6,1][7,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,4,2][3,8,6][7,0,1]]
Generated Nodes:
[[5,4,2][3,0,6][7,8,1]] - Already visited Node!
[[5,4,2][3,8,6][7,1,0]] - f(n) = 22 + 6 = 28
[[5,4,2][3,8,6][0,7,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,0,2][4,5,7][3,1,6]]
Generated Nodes:
[[8,2,0][4,5,7][3,1,6]] - Already visited Node!
[[0,8,2][4,5,7][3,1,6]] - Already visited Node!
[[8,5,2][4,0,7][3,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[2,0,4][5,3,1][7,8,6]]
Generated Nodes:
```

[[2,4,0][5,3,1][7,8,6]] - f(n) = 22 + 6 = 28

```
[[0,2,4][5,3,1][7,8,6]] - Already visited Node!
[[2,3,4][5,0,1][7,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,0,4][3,2,1][7,8,6]]
Generated Nodes:
[[5,4,0][3,2,1][7,8,6]] - f(n) = 22 + 6 = 28
[[0,5,4][3,2,1][7,8,6]] - f(n) = 22 + 6 = 28
[[5,2,4][3,0,1][7,8,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,4][3,8,1][7,0,6]]
Generated Nodes:
[[5,2,4][3,0,1][7,8,6]] - Already visited Node!
[[5,2,4][3,8,1][7,6,0]] - f(n) = 22 + 6 = 28
[[5,2,4][3,8,1][0,7,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[8,2,7][4,0,6][3,5,1]]
Generated Nodes:
[[8,0,7][4,2,6][3,5,1]] - f(n) = 23 + 6 = 29
[[8,2,7][4,6,0][3,5,1]] - f(n) = 23 + 6 = 29
[[8,2,7][0,4,6][3,5,1]] - f(n) = 23 + 6 = 29
[[8,2,7][4,5,6][3,0,1]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,6][0,3,5][4,8,1]]
Generated Nodes:
[[0,2,6][7,3,5][4,8,1]] - f(n) = 22 + 6 = 28
[[7,2,6][3,0,5][4,8,1]] - Already visited Node!
[[7,2,6][4,3,5][0,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][7,3,0][4,8,1]]
Generated Nodes:
[[5,2,0][7,3,6][4,8,1]] - Already visited Node!
[[5,2,6][7,0,3][4,8,1]] - f(n) = 22 + 6 = 28
[[5,2,6][7,3,1][4,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 21 - [[8,1,2][7,5,4][0,3,6]]
Generated Nodes:
[[8,1,2][0,5,4][7,3,6]] - Already visited Node!
[[8,1,2][7,5,4][3,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,5,2][7,8,4][0,3,6]]
```

```
Generated Nodes:
```

```
[[1,5,2][0,8,4][7,3,6]] - Already visited Node! [[1,5,2][7,8,4][3,0,6]] - f(n) = 21 + 7 = 28
```

Node Chosen for Level 22 - [[5,2,6][7,3,0][4,8,1]]

Generated Nodes:

```
[[5,2,0][7,3,6][4,8,1]] - Already visited Node! [[5,2,6][7,0,3][4,8,1]] - f(n) = 22 + 6 = 28 [[5,2,6][7,3,1][4,8,0]] - f(n) = 22 + 6 = 28
```

Node Chosen for Level 22 - [[5,2,6][7,4,0][1,8,3]]

Generated Nodes:

[[5,2,0][7,4,6][1,8,3]] - Already visited Node!

$$[[5,2,6][7,0,4][1,8,3]] - f(n) = 22 + 6 = 28$$

 $[[5,2,6][7,4,3][1,8,0]] - f(n) = 22 + 6 = 28$

Node Chosen for Level 22 - [[8,2,6][5,4,0][7,3,1]]

Generated Nodes:

```
[[8,2,0][5,4,6][7,3,1]] - Already visited Node! [[8,2,6][5,0,4][7,3,1]] - f(n) = 22 + 6 = 28 [[8,2,6][5,4,1][7,3,0]] - f(n) = 22 + 6 = 28
```

Node Chosen for Level 22 - [[5,1,2][3,4,6][7,0,8]]

Generated Nodes:

[[5,1,2][3,0,6][7,4,8]] - f(n) = 22 + 6 = 28[[5,1,2][3,4,6][7,8,0]] - Already visited Node!

[[5,1,2][3,4,6][0,7,8]] - f(n) = 22 + 7 = 29

Node Chosen for Level 22 - [[3,2,4][5,7,6][1,0,8]]

Generated Nodes:

$$[[3,2,4][5,0,6][1,7,8]] - f(n) = 22 + 6 = 28$$

 $[[3,2,4][5,7,6][1,8,0]] - Already visited Node!$
 $[[3,2,4][5,7,6][0,1,8]] - f(n) = 22 + 6 = 28$

Node Chosen for Level 22 - [[7,5,2][4,1,0][3,8,6]]

$$[[7,5,0][4,1,2][3,8,6]] - f(n) = 22 + 6 = 28$$

 $[[7,5,2][4,0,1][3,8,6]] - f(n) = 22 + 6 = 28$

```
[[7,5,2][4,1,6][3,8,0]] - Already visited Node!
Node Chosen for Level 21 - [[1,7,2][5,0,3][8,6,4]]
Generated Nodes:
[[1,0,2][5,7,3][8,6,4]] - f(n) = 21 + 7 = 28
[[1,7,2][5,3,0][8,6,4]] - Already visited Node!
[[1,7,2][0,5,3][8,6,4]] - Already visited Node!
[[1,7,2][5,6,3][8,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[3,7,5][4,2,6][1,0,8]]
Generated Nodes:
[[3,7,5][4,0,6][1,2,8]] - f(n) = 22 + 6 = 28
[[3,7,5][4,2,6][1,8,0]] - Already visited Node!
[[3,7,5][4,2,6][0,1,8]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[0,3,2][1,5,4][7,8,6]]
Generated Nodes:
[[3,0,2][1,5,4][7,8,6]] - f(n) = 23 + 5 = 28
[[1,3,2][0,5,4][7,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,3,2][7,5,4][0,8,6]]
Generated Nodes:
[[1,3,2][0,5,4][7,8,6]] - Already visited Node!
[[1,3,2][7,5,4][8,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[1,7,5][0,3,2][4,8,6]]
Generated Nodes:
[[0,7,5][1,3,2][4,8,6]] - f(n) = 22 + 7 = 29
[[1,7,5][3,0,2][4,8,6]] - f(n) = 22 + 6 = 28
[[1,7,5][4,3,2][0,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[1,2,4][5,3,6][7,0,8]]
Generated Nodes:
[[1,2,4][5,0,6][7,3,8]] - f(n) = 24 + 4 = 28
[[1,2,4][5,3,6][7,8,0]] - Already visited Node!
[[1,2,4][5,3,6][0,7,8]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,2,6][4,1,0][7,8,3]]
Generated Nodes:
```

```
[[5,2,0][4,1,6][7,8,3]] - Already visited Node!
[[5,2,6][4,0,1][7,8,3]] - Already visited Node!
[[5,2,6][4,1,3][7,8,0]] - f(n) = 24 + 4 = 28
Node Chosen for Level 24 - [[1,2,6][5,4,0][7,8,3]]
Generated Nodes:
[[1,2,0][5,4,6][7,8,3]] - Already visited Node!
[[1,2,6][5,0,4][7,8,3]] - f(n) = 24 + 4 = 28
[[1,2,6][5,4,3][7,8,0]] - f(n) = 24 + 4 = 28
Node Chosen for Level 23 - [[7,2,3][4,0,5][8,1,6]]
Generated Nodes:
[[7,0,3][4,2,5][8,1,6]] - f(n) = 23 + 6 = 29
[[7,2,3][4,5,0][8,1,6]] - Already visited Node!
[[7,2,3][0,4,5][8,1,6]] - f(n) = 23 + 6 = 29
[[7,2,3][4,1,5][8,0,6]] - f(n) = 23 + 5 = 28
Node Chosen for Level 21 - [[7,4,0][3,2,6][1,5,8]]
Generated Nodes:
[[7,0,4][3,2,6][1,5,8]] - Already visited Node!
[[7,4,6][3,2,0][1,5,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,4][3,2,6][1,5,8]]
Generated Nodes:
[[7,0,4][3,2,6][1,5,8]] - Already visited Node!
[[3,7,4][0,2,6][1,5,8]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,2,0][3,6,4][1,5,8]]
Generated Nodes:
[[7,0,2][3,6,4][1,5,8]] - f(n) = 21 + 8 = 29
[[7,2,4][3,6,0][1,5,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,4][3,6,8][1,5,0]]
Generated Nodes:
[[7,2,4][3,6,0][1,5,8]] - Already visited Node!
[[7,2,4][3,6,8][1,0,5]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,6,0][4,2,5][8,3,1]]
```

```
Generated Nodes:
[[7,0,6][4,2,5][8,3,1]] - Already visited Node!
[[7,6,5][4,2,0][8,3,1]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,6][4,2,5][8,3,1]]
Generated Nodes:
[[7,0,6][4,2,5][8,3,1]] - Already visited Node!
[[4,7,6][0,2,5][8,3,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,2,6][7,4,5][8,3,1]]
Generated Nodes:
[[2,0,6][7,4,5][8,3,1]] - f(n) = 21 + 8 = 29
[[7,2,6][0,4,5][8,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[3,0,2][1,7,4][8,5,6]]
Generated Nodes:
[[3,2,0][1,7,4][8,5,6]] - f(n) = 20 + 7 = 27
[[0,3,2][1,7,4][8,5,6]] - f(n) = 20 + 8 = 28
[[3,7,2][1,0,4][8,5,6]] - Already visited Node!
Node Chosen for Level 20 - [[3,7,2][1,4,0][8,5,6]]
Generated Nodes:
[[3,7,0][1,4,2][8,5,6]] - f(n) = 20 + 8 = 28
[[3,7,2][1,0,4][8,5,6]] - Already visited Node!
[[3,7,2][1,4,6][8,5,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[3,7,2][0,1,4][8,5,6]]
Generated Nodes:
[[0,7,2][3,1,4][8,5,6]] - f(n) = 20 + 8 = 28
[[3,7,2][1,0,4][8,5,6]] - Already visited Node!
[[3,7,2][8,1,4][0,5,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 21 - [[7,4,0][1,2,6][8,5,3]]
Generated Nodes:
[[7,0,4][1,2,6][8,5,3]] - Already visited Node!
[[7,4,6][1,2,0][8,5,3]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,4][1,2,6][8,5,3]]
```

```
Generated Nodes:
[[7,0,4][1,2,6][8,5,3]] - Already visited Node!
[[1,7,4][0,2,6][8,5,3]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[7,2,0][1,6,4][8,5,3]]
Generated Nodes:
[[7,0,2][1,6,4][8,5,3]] - f(n) = 21 + 8 = 29
[[7,2,4][1,6,0][8,5,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,4][1,6,3][8,5,0]]
Generated Nodes:
[[7,2,4][1,6,0][8,5,3]] - Already visited Node!
[[7,2,4][1,6,3][8,0,5]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[7,2,6][0,3,5][4,8,1]]
Generated Nodes:
[[0,2,6][7,3,5][4,8,1]] - f(n) = 22 + 6 = 28
[[7,2,6][3,0,5][4,8,1]] - Already visited Node!
[[7,2,6][4,3,5][0,8,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,6][7,0,2][3,8,1]]
Generated Nodes:
[[5,0,6][7,4,2][3,8,1]] - f(n) = 21 + 7 = 28
[[5,4,6][7,2,0][3,8,1]] - Already visited Node!
[[5,4,6][0,7,2][3,8,1]] - f(n) = 21 + 7 = 28
[[5,4,6][7,8,2][3,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,4,6][7,2,1][3,8,0]]
Generated Nodes:
[[5,4,6][7,2,0][3,8,1]] - Already visited Node!
[[5,4,6][7,2,1][3,0,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,2][7,6,4][3,8,1]]
Generated Nodes:
[[5,0,2][7,6,4][3,8,1]] - Already visited Node!
[[7,5,2][0,6,4][3,8,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,6,2][7,0,4][3,8,1]]
```

```
Generated Nodes:
[[5,0,2][7,6,4][3,8,1]] - Already visited Node!
[[5,6,2][7,4,0][3,8,1]] - f(n) = 21 + 7 = 28
[[5,6,2][0,7,4][3,8,1]] - f(n) =
                                 21 + 7 = 28
[[5,6,2][7,8,4][3,0,1]] - f(n) =
                                 21 + 8 = 29
Node Chosen for Level 21 - [[5,2,4][7,6,1][0,3,8]]
Generated Nodes:
[[5,2,4][0,6,1][7,3,8]] - f(n) = 21 + 6 = 27
[[5,2,4][7,6,1][3,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[2,4,0][7,3,5][1,8,6]]
Generated Nodes:
[[2,0,4][7,3,5][1,8,6]] - Already visited Node!
[[2,4,5][7,3,0][1,8,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[2,3,4][7,0,5][1,8,6]]
Generated Nodes:
[[2,0,4][7,3,5][1,8,6]] - Already visited Node!
[[2,3,4][7,5,0][1,8,6]] - f(n) = 21 + 6 = 27
[[2,3,4][0,7,5][1,8,6]] - f(n) = 21 + 7 = 28
[[2,3,4][7,8,5][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[7,2,4][5,1,6][3,0,8]]
Generated Nodes:
[[7,2,4][5,0,6][3,1,8]] - Already visited Node!
[[7,2,4][5,1,6][3,8,0]] - f(n) = 22 + 5 = 27
[[7,2,4][5,1,6][0,3,8]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,6][4,1,0][8,5,3]]
Generated Nodes:
[[7,2,0][4,1,6][8,5,3]] - f(n) = 22 + 5 = 27
[[7,2,6][4,0,1][8,5,3]] - Already visited Node!
[[7,2,6][4,1,3][8,5,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 21 - [[8,7,0][3,5,2][4,1,6]]
Generated Nodes:
```

[[8,0,7][3,5,2][4,1,6]] - f(n) = 21 + 7 = 28[[8,7,2][3,5,0][4,1,6]] - Already visited Node!

```
Node Chosen for Level 20 - [[8,0,2][3,7,1][6,5,4]]
Generated Nodes:
[[8,2,0][3,7,1][6,5,4]] - f(n) = 20 + 7 = 27
[[0,8,2][3,7,1][6,5,4]] - f(n) = 20 + 8 = 28
[[8,7,2][3,0,1][6,5,4]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,2][3,1,0][6,5,4]]
Generated Nodes:
[[8,7,0][3,1,2][6,5,4]] - f(n) = 20 + 8 = 28
[[8,7,2][3,0,1][6,5,4]] - Already visited Node!
[[8,7,2][3,1,4][6,5,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,7,2][0,3,1][6,5,4]]
Generated Nodes:
[[0,7,2][8,3,1][6,5,4]] - f(n) = 20 + 8 = 28
[[8,7,2][3,0,1][6,5,4]] - Already visited Node!
[[8,7,2][6,3,1][0,5,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[3,0,2][5,7,8][1,6,4]]
Generated Nodes:
[[3,2,0][5,7,8][1,6,4]] - f(n) = 20 + 7 = 27
[[0,3,2][5,7,8][1,6,4]] - f(n) = 20 + 8 = 28
[[3,7,2][5,0,8][1,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[3,7,2][5,8,0][1,6,4]]
Generated Nodes:
[[3,7,0][5,8,2][1,6,4]] - f(n) = 20 + 8 = 28
[[3,7,2][5,0,8][1,6,4]] - Already visited Node!
[[3,7,2][5,8,4][1,6,0]] - Already visited Node!
Node Chosen for Level 20 - [[3,7,2][5,6,8][1,0,4]]
Generated Nodes:
[[3,7,2][5,0,8][1,6,4]] - Already visited Node!
[[3,7,2][5,6,8][1,4,0]] - f(n) = 20 + 8 = 28
[[3,7,2][5,6,8][0,1,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 21 - [[5,4,0][7,2,3][1,8,6]]
```

```
[[5,0,4][7,2,3][1,8,6]] - Already visited Node!
[[5,4,3][7,2,0][1,8,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[0,5,4][7,2,3][1,8,6]]
Generated Nodes:
[[5,0,4][7,2,3][1,8,6]] - Already visited Node!
[[7,5,4][0,2,3][1,8,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,4][7,8,3][1,6,0]]
Generated Nodes:
[[5,2,4][7,8,0][1,6,3]] - f(n) = 21 + 7 = 28
[[5,2,4][7,8,3][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][7,8,3][0,1,6]]
Generated Nodes:
[[5,2,4][0,8,3][7,1,6]] - f(n) = 21 + 6 = 27
[[5,2,4][7,8,3][1,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,4][0,3,6][8,7,1]]
Generated Nodes:
[[0,2,4][5,3,6][8,7,1]] - f(n) = 22 + 6 = 28
[[5,2,4][3,0,6][8,7,1]] - Already visited Node!
[[5,2,4][8,3,6][0,7,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,0][4,6,5][3,2,1]]
Generated Nodes:
[[8,0,7][4,6,5][3,2,1]] - f(n) = 21 + 7 = 28
[[8,7,5][4,6,0][3,2,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][4,6,1][3,2,0]]
Generated Nodes:
[[8,7,5][4,6,0][3,2,1]] - Already visited Node!
[[8,7,5][4,6,1][3,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][3,4,6][0,2,1]]
Generated Nodes:
[[8,7,5][0,4,6][3,2,1]] - Already visited Node!
```

```
[[8,7,5][3,4,6][2,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,7,5][8,2,6][4,3,1]]
Generated Nodes:
[[7,0,5][8,2,6][4,3,1]] - f(n) = 21 + 7 = 28
[[8,7,5][0,2,6][4,3,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][2,0,6][4,3,1]]
Generated Nodes:
[[8,0,5][2,7,6][4,3,1]] - f(n) = 21 + 7 = 28
[[8,7,5][2,6,0][4,3,1]] - f(n) = 21 + 8 = 29
[[8,7,5][0,2,6][4,3,1]] - Already visited Node!
[[8,7,5][2,3,6][4,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,4,0][7,2,6][8,1,3]]
Generated Nodes:
[[5,0,4][7,2,6][8,1,3]] - Already visited Node!
[[5,4,6][7,2,0][8,1,3]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,4][7,2,6][8,1,3]]
Generated Nodes:
[[5,0,4][7,2,6][8,1,3]] - Already visited Node!
[[7,5,4][0,2,6][8,1,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,0][7,6,4][8,1,3]]
Generated Nodes:
[[5,0,2][7,6,4][8,1,3]] - f(n) = 21 + 8 = 29
[[5,2,4][7,6,0][8,1,3]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][7,6,3][8,1,0]]
Generated Nodes:
[[5,2,4][7,6,0][8,1,3]] - Already visited Node!
[[5,2,4][7,6,3][8,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 23 - [[2,4,0][7,5,6][1,8,3]]
Generated Nodes:
[[2,0,4][7,5,6][1,8,3]] - Already visited Node!
[[2,4,6][7,5,0][1,8,3]] - f(n) = 23 + 6 = 29
```

```
Node Chosen for Level 22 - [[3,0,2][5,7,6][4,8,1]]
Generated Nodes:
[[3,2,0][5,7,6][4,8,1]] - f(n) = 22 + 5 = 27
[[0,3,2][5,7,6][4,8,1]] - f(n) =
                                   22 + 6 = 28
[[3,7,2][5,0,6][4,8,1]] - Already visited Node!
Node Chosen for Level 21 - [[2,4,0][5,1,8][7,3,6]]
Generated Nodes:
[[2,0,4][5,1,8][7,3,6]] - Already visited Node!
[[2,4,8][5,1,0][7,3,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[2,1,4][5,0,8][7,3,6]]
Generated Nodes:
[[2,0,4][5,1,8][7,3,6]] - Already visited Node!
[[2,1,4][5,8,0][7,3,6]] - f(n) = 21 + 7 = 28
[[2,1,4][0,5,8][7,3,6]] - f(n) = 21 + 6 = 27
[[2,1,4][5,3,8][7,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,4,0][1,2,8][7,3,6]]
Generated Nodes:
[[5,0,4][1,2,8][7,3,6]] - Already visited Node!
[[5,4,8][1,2,0][7,3,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,5,4][1,2,8][7,3,6]]
Generated Nodes:
[[5,0,4][1,2,8][7,3,6]] - Already visited Node!
[[1,5,4][0,2,8][7,3,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,1,2][3,8,4][7,6,0]]
Generated Nodes:
[[5,1,2][3,8,0][7,6,4]] - f(n) = 21 + 7 = 28
[[5,1,2][3,8,4][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[2,4,0][5,1,6][7,8,3]]
Generated Nodes:
[[2,0,4][5,1,6][7,8,3]] - Already visited Node!
[[2,4,6][5,1,0][7,8,3]] - f(n) = 23 + 6 = 29
```

```
Node Chosen for Level 23 - [[2,1,4][5,0,6][7,8,3]]
Generated Nodes:
[[2,0,4][5,1,6][7,8,3]] - Already visited Node!
[[2,1,4][5,6,0][7,8,3]] - f(n) = 23 + 6 = 29
[[2,1,4][0,5,6][7,8,3]] - f(n) = 23 + 4 = 27
[[2,1,4][5,8,6][7,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,4,0][1,2,6][7,8,3]]
Generated Nodes:
[[5,0,4][1,2,6][7,8,3]] - Already visited Node!
[[5,4,6][1,2,0][7,8,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,5,4][1,2,6][7,8,3]]
Generated Nodes:
[[5,0,4][1,2,6][7,8,3]] - Already visited Node!
[[1,5,4][0,2,6][7,8,3]] - f(n) = 23 + 4 = 27
Node Chosen for Level 23 - [[5,2,0][1,6,4][7,8,3]]
Generated Nodes:
[[5,0,2][1,6,4][7,8,3]] - f(n) = 23 + 6 = 29
[[5,2,4][1,6,0][7,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][1,6,3][7,8,0]]
Generated Nodes:
[[5,2,4][1,6,0][7,8,3]] - Already visited Node!
[[5,2,4][1,6,3][7,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[4,7,2][1,5,6][0,8,3]]
Generated Nodes:
[[4,7,2][0,5,6][1,8,3]] - Already visited Node!
[[4,7,2][1,5,6][8,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[7,2,1][0,3,5][6,8,4]]
Generated Nodes:
[[0,2,1][7,3,5][6,8,4]] - f(n) = 22 + 6 = 28
[[7,2,1][3,0,5][6,8,4]] - Already visited Node!
[[7,2,1][6,3,5][0,8,4]] - f(n) = 22 + 6 = 28
```

```
Node Chosen for Level 21 - [[8,2,6][5,0,7][3,4,1]]
Generated Nodes:
[[8,0,6][5,2,7][3,4,1]] - f(n) = 21 + 8 = 29
[[8,2,6][5,7,0][3,4,1]] - Already visited Node!
[[8,2,6][0,5,7][3,4,1]] - f(n) = 21 + 6 = 27
[[8,2,6][5,4,7][3,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[8,2,6][5,7,1][3,4,0]]
Generated Nodes:
[[8,2,6][5,7,0][3,4,1]] - Already visited Node!
[[8,2,6][5,7,1][3,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[3,7,2][5,0,6][1,4,8]]
Generated Nodes:
[[3,0,2][5,7,6][1,4,8]] - f(n) = 21 + 7 = 28
[[3,7,2][5,6,0][1,4,8]] - f(n) = 21 + 8 = 29
[[3,7,2][0,5,6][1,4,8]] - Already visited Node!
[[3,7,2][5,4,6][1,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,2][5,4,6][0,1,8]]
Generated Nodes:
[[3,7,2][0,4,6][5,1,8]] - f(n) = 21 + 7 = 28
[[3,7,2][5,4,6][1,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[0,5,2][7,6,1][4,8,3]]
Generated Nodes:
[[5,0,2][7,6,1][4,8,3]] - f(n) = 21 + 7 = 28
[[7,5,2][0,6,1][4,8,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][6,0,1][4,8,3]]
Generated Nodes:
[[7,0,2][6,5,1][4,8,3]] - f(n) = 21 + 6 = 27
[[7,5,2][6,1,0][4,8,3]] - f(n) = 21 + 7 = 28
[[7,5,2][0,6,1][4,8,3]] - Already visited Node!
[[7,5,2][6,8,1][4,0,3]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,0][4,6,2][3,1,8]]
Generated Nodes:
```

```
[[7,0,5][4,6,2][3,1,8]] - f(n) = 21 + 7 = 28
[[7,5,2][4,6,0][3,1,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][4,6,8][3,1,0]]
Generated Nodes:
[[7,5,2][4,6,0][3,1,8]] - Already visited Node!
[[7,5,2][4,6,8][3,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 23 - [[0,2,6][7,5,1][4,8,3]]
Generated Nodes:
[[2,0,6][7,5,1][4,8,3]] - f(n) = 23 + 6 = 29
[[7,2,6][0,5,1][4,8,3]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,5][4,8,2][1,6,0]]
Generated Nodes:
[[3,7,5][4,8,0][1,6,2]] - f(n) = 21 + 7 = 28
[[3,7,5][4,8,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,5][4,8,2][0,1,6]]
Generated Nodes:
[[3,7,5][0,8,2][4,1,6]] - f(n) = 21 + 8 = 29
[[3,7,5][4,8,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][3,0,6][1,2,8]]
Generated Nodes:
[[7,0,5][3,4,6][1,2,8]] - f(n) = 21 + 7 = 28
[[7,4,5][3,6,0][1,2,8]] - f(n) = 21 + 8 = 29
[[7,4,5][0,3,6][1,2,8]] - f(n) = 21 + 7 = 28
[[7,4,5][3,2,6][1,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][3,2,6][0,1,8]]
Generated Nodes:
[[7,4,5][0,2,6][3,1,8]] - f(n) = 21 + 7 = 28
[[7,4,5][3,2,6][1,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,2][7,0,6][1,4,8]]
Generated Nodes:
```

```
[[5,0,2][7,3,6][1,4,8]] - Already visited Node!
[[5,3,2][7,6,0][1,4,8]] - f(n) = 21 + 8 = 29
[[5,3,2][0,7,6][1,4,8]] - f(n) = 21 + 7 = 28
[[5,3,2][7,4,6][1,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,2][7,4,6][0,1,8]]
Generated Nodes:
[[5,3,2][0,4,6][7,1,8]] - f(n) = 21 + 6 = 27
[[5,3,2][7,4,6][1,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,7][8,4,5][3,1,6]]
Generated Nodes:
[[2,0,7][8,4,5][3,1,6]] - f(n) = 21 + 8 = 29
[[8,2,7][0,4,5][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,7][3,4,5][0,1,6]]
Generated Nodes:
[[8,2,7][0,4,5][3,1,6]] - Already visited Node!
[[8,2,7][3,4,5][1,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 23 - [[3,7,2][4,5,6][8,1,0]]
Generated Nodes:
[[3,7,2][4,5,0][8,1,6]] - f(n) = 23 + 6 = 29
[[3,7,2][4,5,6][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][3,0,6][1,2,8]]
Generated Nodes:
[[7,0,5][3,4,6][1,2,8]] - f(n) = 21 + 7 = 28
[[7,4,5][3,6,0][1,2,8]] - f(n) = 21 + 8 = 29
[[7,4,5][0,3,6][1,2,8]] - f(n) = 21 + 7 = 28
[[7,4,5][3,2,6][1,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][3,2,6][0,1,8]]
Generated Nodes:
[[7,4,5][0,2,6][3,1,8]] - f(n) = 21 + 7 = 28
[[7,4,5][3,2,6][1,0,8]] - Already visited Node!
Node Chosen for Level 22 - [[1,0,2][5,7,6][8,4,3]]
Generated Nodes:
```

```
[[1,2,0][5,7,6][8,4,3]] - f(n) = 22 + 5 = 27
[[0,1,2][5,7,6][8,4,3]] - f(n) = 22 + 7 = 29
[[1,7,2][5,0,6][8,4,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][4,0,8][7,3,1]]
Generated Nodes:
[[5,0,6][4,2,8][7,3,1]] - f(n) = 23 + 6 = 29
[[5,2,6][4,8,0][7,3,1]] - Already visited Node!
[[5,2,6][0,4,8][7,3,1]] - f(n) = 23 + 6 = 29
[[5,2,6][4,3,8][7,0,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[5,2,6][4,8,1][7,3,0]]
Generated Nodes:
[[5,2,6][4,8,0][7,3,1]] - Already visited Node!
[[5,2,6][4,8,1][7,0,3]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[7,2,6][4,5,8][3,1,0]]
Generated Nodes:
[[7,2,6][4,5,0][3,1,8]] - Already visited Node!
[[7,2,6][4,5,8][3,0,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 22 - [[7,2,3][0,1,5][8,6,4]]
Generated Nodes:
[[0,2,3][7,1,5][8,6,4]] - f(n) = 22 + 6 = 28
[[7,2,3][1,0,5][8,6,4]] - Already visited Node!
[[7,2,3][8,1,5][0,6,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,3][1,6,5][8,0,4]]
Generated Nodes:
[[7,2,3][1,0,5][8,6,4]] - Already visited Node!
[[7,2,3][1,6,5][8,4,0]] - f(n) = 22 + 6 = 28
[[7,2,3][1,6,5][0,8,4]] - f(n) = 22 + 5 = 27
Node Chosen for Level 23 - [[5,1,0][4,6,2][7,8,3]]
Generated Nodes:
[[5,0,1][4,6,2][7,8,3]] - f(n) = 23 + 5 = 28
[[5,1,2][4,6,0][7,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,1,2][4,6,3][7,8,0]]
```

```
Generated Nodes:
[[5,1,2][4,6,0][7,8,3]] - Already visited Node!
[[5,1,2][4,6,3][7,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,1,2][4,8,6][7,3,0]]
Generated Nodes:
[[5,1,2][4,8,0][7,3,6]] - f(n) = 23 + 6 = 29
[[5,1,2][4,8,6][7,0,3]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,6][0,2,5][3,4,1]]
Generated Nodes:
[[0,7,6][8,2,5][3,4,1]] - Already visited Node!
[[8,7,6][2,0,5][3,4,1]] - f(n) = 20 + 8 = 28
[[8,7,6][3,2,5][0,4,1]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,0,7][5,6,2][3,4,1]]
Generated Nodes:
[[8,7,0][5,6,2][3,4,1]] - Already visited Node!
[[0,8,7][5,6,2][3,4,1]] - f(n) = 20 + 8 = 28
[[8,6,7][5,0,2][3,4,1]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[3,7,2][5,8,0][1,6,4]]
Generated Nodes:
[[3,7,0][5,8,2][1,6,4]] - f(n) = 20 + 8 = 28
[[3,7,2][5,0,8][1,6,4]] - Already visited Node!
[[3,7,2][5,8,4][1,6,0]] - Already visited Node!
Node Chosen for Level 20 - [[3,7,2][0,8,4][5,1,6]]
Generated Nodes:
[[0,7,2][3,8,4][5,1,6]] - f(n) = 20 + 8 = 28
[[3,7,2][8,0,4][5,1,6]] - f(n) = 20 + 8 = 28
[[3,7,2][5,8,4][0,1,6]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,1][0,2,5][3,6,4]]
Generated Nodes:
[[0,7,1][8,2,5][3,6,4]] - Already visited Node!
[[8,7,1][2,0,5][3,6,4]] - f(n) = 20 + 8 = 28
[[8,7,1][3,2,5][0,6,4]] - f(n) = 20 + 8 = 28
```

```
Node Chosen for Level 21 - [[4,7,2][5,3,6][8,1,0]]
Generated Nodes:
[[4,7,2][5,3,0][8,1,6]] - f(n) = 21 + 8 = 29
[[4,7,2][5,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,5][3,6,2][1,4,8]]
Generated Nodes:
[[7,5,0][3,6,2][1,4,8]] - Already visited Node!
[[0,7,5][3,6,2][1,4,8]] - f(n) = 20 + 8 = 28
[[7,6,5][3,0,2][1,4,8]] - f(n) = 20 + 8 = 28
Node Chosen for Level 21 - [[7,2,6][8,1,4][3,5,0]]
Generated Nodes:
[[7,2,6][8,1,0][3,5,4]] - Already visited Node!
[[7,2,6][8,1,4][3,0,5]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,2,6][7,8,1][3,5,4]]
Generated Nodes:
[[2,0,6][7,8,1][3,5,4]] - f(n) = 21 + 8 = 29
[[7,2,6][0,8,1][3,5,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,6][3,8,1][0,5,4]]
Generated Nodes:
[[7,2,6][0,8,1][3,5,4]] - Already visited Node!
[[7,2,6][3,8,1][5,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 20 - [[5,0,8][7,6,2][3,4,1]]
Generated Nodes:
[[5,8,0][7,6,2][3,4,1]] - Already visited Node!
[[0,5,8][7,6,2][3,4,1]] - f(n) = 20 + 8 = 28
[[5,6,8][7,0,2][3,4,1]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,0,5][3,8,2][4,1,6]]
Generated Nodes:
[[7,5,0][3,8,2][4,1,6]] - Already visited Node!
[[0,7,5][3,8,2][4,1,6]] - f(n) = 20 + 8 = 28
[[7,8,5][3,0,2][4,1,6]] - f(n) = 20 + 8 = 28
```

```
Node Chosen for Level 20 - [[7,5,2][0,3,8][4,1,6]]
Generated Nodes:
[[0,5,2][7,3,8][4,1,6]] - f(n) = 20 + 8 = 28
[[7,5,2][3,0,8][4,1,6]] - Already visited Node!
[[7,5,2][4,3,8][0,1,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,5,2][3,1,8][4,0,6]]
Generated Nodes:
[[7,5,2][3,0,8][4,1,6]] - Already visited Node!
[[7,5,2][3,1,8][4,6,0]] - f(n) = 20 + 8 = 28
[[7,5,2][3,1,8][0,4,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,0,4][7,6,2][8,3,1]]
Generated Nodes:
[[5,4,0][7,6,2][8,3,1]] - Already visited Node!
[[0,5,4][7,6,2][8,3,1]] - f(n) = 20 + 8 = 28
[[5,6,4][7,0,2][8,3,1]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,4,2][7,6,1][8,0,3]]
Generated Nodes:
[[5,4,2][7,0,1][8,6,3]] - f(n) = 20 + 8 = 28
[[5,4,2][7,6,1][8,3,0]] - Already visited Node!
[[5,4,2][7,6,1][0,8,3]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[2,4,8][5,7,0][3,1,6]]
Generated Nodes:
[[2,4,0][5,7,8][3,1,6]] - Already visited Node!
[[2,4,8][5,0,7][3,1,6]] - f(n) = 20 + 8 = 28
[[2,4,8][5,7,6][3,1,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[2,7,4][5,8,0][3,1,6]]
Generated Nodes:
[[2,7,0][5,8,4][3,1,6]] - f(n) = 20 + 8 = 28
[[2,7,4][5,0,8][3,1,6]] - Already visited Node!
[[2,7,4][5,8,6][3,1,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[2,7,4][5,1,8][3,0,6]]
```

```
[[2,7,4][5,0,8][3,1,6]] - Already visited Node!
[[2,7,4][5,1,8][3,6,0]] - f(n) = 20 + 8 = 28
[[2,7,4][5,1,8][0,3,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,3,2][7,8,0][1,6,4]]
Generated Nodes:
[[5,3,0][7,8,2][1,6,4]] - f(n) = 20 + 8 = 28
[[5,3,2][7,0,8][1,6,4]] - Already visited Node!
[[5,3,2][7,8,4][1,6,0]] - Already visited Node!
Node Chosen for Level 21 - [[0,8,2][3,7,6][4,5,1]]
Generated Nodes:
[[8,0,2][3,7,6][4,5,1]] - Already visited Node!
[[3,8,2][0,7,6][4,5,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,7,2][8,3,6][4,5,1]]
Generated Nodes:
[[7,0,2][8,3,6][4,5,1]] - f(n) = 21 + 7 = 28
[[8,7,2][0,3,6][4,5,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,0][8,4,1][3,5,6]]
Generated Nodes:
[[7,0,2][8,4,1][3,5,6]] - f(n) = 21 + 8 = 29
[[7,2,1][8,4,0][3,5,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,1][7,8,4][3,5,6]]
Generated Nodes:
[[2,0,1][7,8,4][3,5,6]] - f(n) = 21 + 8 = 29
[[7,2,1][0,8,4][3,5,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,1][3,8,4][0,5,6]]
Generated Nodes:
[[7,2,1][0,8,4][3,5,6]] - Already visited Node!
[[7,2,1][3,8,4][5,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 20 - [[4,8,5][3,7,2][1,0,6]]
Generated Nodes:
```

```
[[4,8,5][3,0,2][1,7,6]] - f(n) = 20 + 8 = 28
[[4,8,5][3,7,2][1,6,0]] - f(n) = 20 + 8 = 28
[[4,8,5][3,7,2][0,1,6]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,5][8,1,2][4,3,6]]
Generated Nodes:
[[7,5,0][8,1,2][4,3,6]] - f(n) = 20 + 8 = 28
[[0,7,5][8,1,2][4,3,6]] - Already visited Node!
[[7,1,5][8,0,2][4,3,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,0,5][1,7,2][4,3,6]]
Generated Nodes:
[[8,5,0][1,7,2][4,3,6]] - f(n) = 20 + 8 = 28
[[0,8,5][1,7,2][4,3,6]] - f(n) = 20 + 8 = 28
[[8,7,5][1,0,2][4,3,6]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,5][1,2,0][4,3,6]]
Generated Nodes:
[[8,7,0][1,2,5][4,3,6]] - f(n) = 20 + 8 = 28
[[8,7,5][1,0,2][4,3,6]] - Already visited Node!
[[8,7,5][1,2,6][4,3,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[8,7,5][1,3,2][4,0,6]]
Generated Nodes:
[[8,7,5][1,0,2][4,3,6]] - Already visited Node!
[[8,7,5][1,3,2][4,6,0]] - f(n) = 20 + 8 = 28
[[8,7,5][1,3,2][0,4,6]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,4][8,6,5][3,2,1]]
Generated Nodes:
[[7,4,0][8,6,5][3,2,1]] - Already visited Node!
[[0,7,4][8,6,5][3,2,1]] - f(n) = 20 + 8 = 28
[[7,6,4][8,0,5][3,2,1]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,0,8][7,6,2][3,4,1]]
Generated Nodes:
[[5,8,0][7,6,2][3,4,1]] - Already visited Node!
[[0,5,8][7,6,2][3,4,1]] - f(n) = 20 + 8 = 28
[[5,6,8][7,0,2][3,4,1]] - f(n) = 20 + 8 = 28
```

```
Node Chosen for Level 20 - [[5,4,1][7,2,0][8,3,6]]
Generated Nodes:
[[5,4,0][7,2,1][8,3,6]] - Already visited Node!
[[5,4,1][7,0,2][8,3,6]] - Already visited Node!
[[5,4,1][7,2,6][8,3,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,5,4][0,2,1][8,3,6]]
Generated Nodes:
[[0,5,4][7,2,1][8,3,6]] - Already visited Node!
[[7,5,4][2,0,1][8,3,6]] - f(n) = 20 + 8 = 28
[[7,5,4][8,2,1][0,3,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,0,5][1,6,2][8,4,3]]
Generated Nodes:
[[7,5,0][1,6,2][8,4,3]] - Already visited Node!
[[0,7,5][1,6,2][8,4,3]] - f(n) = 20 + 8 = 28
[[7,6,5][1,0,2][8,4,3]] - f(n) = 20 + 8 = 28
Node Chosen for Level 21 - [[1,7,0][8,4,2][3,5,6]]
Generated Nodes:
[[1,0,7][8,4,2][3,5,6]] - f(n) = 21 + 7 = 28
[[1,7,2][8,4,0][3,5,6]] - Already visited Node!
Node Chosen for Level 21 - [[1,7,2][3,8,4][0,5,6]]
Generated Nodes:
[[1,7,2][0,8,4][3,5,6]] - Already visited Node!
[[1,7,2][3,8,4][5,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[5,2,4][0,3,6][8,7,1]]
Generated Nodes:
[[0,2,4][5,3,6][8,7,1]] - f(n) = 22 + 6 = 28
[[5,2,4][3,0,6][8,7,1]] - Already visited Node!
[[5,2,4][8,3,6][0,7,1]] - Already visited Node!
Node Chosen for Level 22 - [[2,8,4][5,3,6][7,0,1]]
Generated Nodes:
[[2,8,4][5,0,6][7,3,1]] - Already visited Node!
[[2,8,4][5,3,6][7,1,0]] - f(n) = 22 + 6 = 28
```

```
[[2,8,4][5,3,6][0,7,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,5,4][0,2,6][7,3,1]]
Generated Nodes:
[[0,5,4][8,2,6][7,3,1]] - Already visited Node!
[[8,5,4][2,0,6][7,3,1]] - f(n) = 22 + 6 = 28
[[8,5,4][7,2,6][0,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,4][8,6,1][7,0,3]]
Generated Nodes:
[[5,2,4][8,0,1][7,6,3]] - f(n) = 22 + 6 = 28
[[5,2,4][8,6,1][7,3,0]] - Already visited Node!
[[5,2,4][8,6,1][0,7,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 21 - [[0,2,8][7,3,5][1,6,4]]
Generated Nodes:
[[2,0,8][7,3,5][1,6,4]] - f(n) = 21 + 8 = 29
[[7,2,8][0,3,5][1,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,8][1,3,5][0,6,4]]
Generated Nodes:
[[7,2,8][0,3,5][1,6,4]] - Already visited Node!
[[7,2,8][1,3,5][6,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,2,8][3,6,5][1,4,0]]
Generated Nodes:
[[7,2,8][3,6,0][1,4,5]] - f(n) = 21 + 7 = 28
[[7,2,8][3,6,5][1,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,8][3,6,5][0,1,4]]
Generated Nodes:
[[7,2,8][0,6,5][3,1,4]] - f(n) = 21 + 7 = 28
[[7,2,8][3,6,5][1,0,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,4][0,7,6][1,3,8]]
Generated Nodes:
[[0,2,4][5,7,6][1,3,8]] - f(n) = 22 + 6 = 28
[[5,2,4][7,0,6][1,3,8]] - Already visited Node!
```

```
[[5,2,4][1,7,6][0,3,8]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,0,5][4,6,2][1,8,3]]
Generated Nodes:
[[7,5,0][4,6,2][1,8,3]] - Already visited Node!
[[0,7,5][4,6,2][1,8,3]] - f(n) = 22 + 6 = 28
[[7,6,5][4,0,2][1,8,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,6][3,5,8][1,0,4]]
Generated Nodes:
[[7,2,6][3,0,8][1,5,4]] - f(n) = 22 + 7 = 29
[[7,2,6][3,5,8][1,4,0]] - Already visited Node!
[[7,2,6][3,5,8][0,1,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,0,8][4,6,2][7,3,1]]
Generated Nodes:
[[5,8,0][4,6,2][7,3,1]] - Already visited Node!
[[0,5,8][4,6,2][7,3,1]] - f(n) = 22 + 6 = 28
[[5,6,8][4,0,2][7,3,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,8,2][4,6,1][7,0,3]]
Generated Nodes:
[[5,8,2][4,0,1][7,6,3]] - f(n) = 22 + 6 = 28
[[5,8,2][4,6,1][7,3,0]] - Already visited Node!
[[5,8,2][4,6,1][0,7,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,6][1,5,3][8,0,4]]
Generated Nodes:
[[7,2,6][1,0,3][8,5,4]] - f(n) = 22 + 7 = 29
[[7,2,6][1,5,3][8,4,0]] - Already visited Node!
[[7,2,6][1,5,3][0,8,4]] - f(n) = 22 + 5 = 27
Node Chosen for Level 21 - [[3,7,4][2,0,5][1,8,6]]
Generated Nodes:
[[3,0,4][2,7,5][1,8,6]] - f(n) = 21 + 7 = 28
[[3,7,4][2,5,0][1,8,6]] - f(n) = 21 + 6 = 27
[[3,7,4][0,2,5][1,8,6]] - Already visited Node!
[[3,7,4][2,8,5][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[3,7,4][1,2,5][0,8,6]]
```

```
Generated Nodes:
```

```
[[3,7,4][0,2,5][1,8,6]] - Already visited Node! [[3,7,4][1,2,5][8,0,6]] - f(n) = 21 + 8 = 29
```

Node Chosen for Level 21 - [[7,2,0][3,8,4][1,6,5]]

Generated Nodes:

```
[[7,0,2][3,8,4][1,6,5]] - f(n) = 21 + 8 = 29
[[7,2,4][3,8,0][1,6,5]] - Already visited Node!
```

Node Chosen for Level 21 - [[7,2,4][3,0,8][1,6,5]]

Generated Nodes:

```
[[7,0,4][3,2,8][1,6,5]] - f(n) = 21 + 8 = 29

[[7,2,4][3,8,0][1,6,5]] - Already visited Node!

[[7,2,4][0,3,8][1,6,5]] - f(n) = 21 + 7 = 28

[[7,2,4][3,6,8][1,0,5]] - f(n) = 21 + 7 = 28
```

Node Chosen for Level 21 - [[0,2,4][7,8,5][3,1,6]]

Generated Nodes:

```
[[2,0,4][7,8,5][3,1,6]] - f(n) = 21 + 8 = 29
[[7,2,4][0,8,5][3,1,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[7,2,4][1,3,6][5,0,8]]

Generated Nodes:

[[7,2,4][1,0,6][5,3,8]] - f(n) = 22 + 6 = 28 [[7,2,4][1,3,6][5,8,0]] - f(n) = 22 + 5 = 27[[7,2,4][1,3,6][0,5,8]] - Already visited Node!

Node Chosen for Level 22 - [[7,2,6][4,3,0][8,1,5]]

Generated Nodes:

$$[[7,2,0][4,3,6][8,1,5]] - f(n) = 22 + 5 = 27$$

 $[[7,2,6][4,0,3][8,1,5]] - f(n) = 22 + 6 = 28$
 $[[7,2,6][4,3,5][8,1,0]] - Already visited Node!$

Node Chosen for Level 21 - [[3,7,0][1,5,2][8,6,4]]

Generated Nodes:

[[3,0,7][1,5,2][8,6,4]] - f(n) = 21 + 7 = 28[[3,7,2][1,5,0][8,6,4]] - Already visited Node!

```
Node Chosen for Level 20 - [[8,0,7][5,1,2][3,6,4]]
Generated Nodes:
[[8,7,0][5,1,2][3,6,4]] - Already visited Node!
[[0,8,7][5,1,2][3,6,4]] - f(n) = 20 + 8 = 28
[[8,1,7][5,0,2][3,6,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,7,2][0,6,1][5,3,4]]
Generated Nodes:
[[0,7,2][8,6,1][5,3,4]] - f(n) = 20 + 8 = 28
[[8,7,2][6,0,1][5,3,4]] - f(n) = 20 + 8 = 28
[[8,7,2][5,6,1][0,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,5][4,3,2][8,1,6]]
Generated Nodes:
[[7,0,5][4,3,2][8,1,6]] - Already visited Node!
[[4,7,5][0,3,2][8,1,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,3,5][4,0,2][8,1,6]]
Generated Nodes:
[[7,0,5][4,3,2][8,1,6]] - Already visited Node!
[[7,3,5][4,2,0][8,1,6]] - f(n) = 21 + 7 = 28
[[7,3,5][0,4,2][8,1,6]] - f(n) = 21 + 8 = 29
[[7,3,5][4,1,2][8,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,5,2][4,1,3][8,6,0]]
Generated Nodes:
[[7,5,2][4,1,0][8,6,3]] - Already visited Node!
[[7,5,2][4,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,4][8,1,6][5,0,3]]
Generated Nodes:
[[7,2,4][8,0,6][5,1,3]] - f(n) = 22 + 6 = 28
[[7,2,4][8,1,6][5,3,0]] - f(n) = 22 + 6 = 28
[[7,2,4][8,1,6][0,5,3]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,6][5,7,8][3,4,1]]
Generated Nodes:
[[2,0,6][5,7,8][3,4,1]] - f(n) = 21 + 8 = 29
```

```
[[5,2,6][0,7,8][3,4,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,6][3,7,8][0,4,1]]
Generated Nodes:
[[5,2,6][0,7,8][3,4,1]] - Already visited Node!
[[5,2,6][3,7,8][4,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,6][7,4,8][3,1,0]]
Generated Nodes:
[[5,2,6][7,4,0][3,1,8]] - f(n) = 21 + 7 = 28
[[5,2,6][7,4,8][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,6][7,4,8][0,3,1]]
Generated Nodes:
[[5,2,6][0,4,8][7,3,1]] - f(n) = 21 + 6 = 27
[[5,2,6][7,4,8][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,6][7,8,1][0,3,4]]
Generated Nodes:
[[5,2,6][0,8,1][7,3,4]] - f(n) = 21 + 6 = 27
[[5,2,6][7,8,1][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,5][3,6,2][4,8,1]]
Generated Nodes:
[[7,0,5][3,6,2][4,8,1]] - Already visited Node!
[[3,7,5][0,6,2][4,8,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,6,5][3,0,2][4,8,1]]
Generated Nodes:
[[7,0,5][3,6,2][4,8,1]] - Already visited Node!
[[7,6,5][3,2,0][4,8,1]] - f(n) = 21 + 7 = 28
[[7,6,5][0,3,2][4,8,1]] - f(n) = 21 + 7 = 28
[[7,6,5][3,8,2][4,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,2,6][5,7,4][8,3,1]]
Generated Nodes:
[[2,0,6][5,7,4][8,3,1]] - f(n) = 21 + 8 = 29
[[5,2,6][0,7,4][8,3,1]] - Already visited Node!
```

```
Node Chosen for Level 21 - [[5,2,6][8,7,4][0,3,1]]
Generated Nodes:
[[5,2,6][0,7,4][8,3,1]] - Already visited Node!
[[5,2,6][8,7,4][3,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,6][7,3,4][8,1,0]]
Generated Nodes:
[[5,2,6][7,3,0][8,1,4]] - f(n) = 21 + 7 = 28
[[5,2,6][7,3,4][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,6][7,0,1][8,4,3]]
Generated Nodes:
[[5,0,6][7,2,1][8,4,3]] - f(n) = 21 + 8 = 29
[[5,2,6][7,1,0][8,4,3]] - f(n) = 21 + 7 = 28
[[5,2,6][0,7,1][8,4,3]] - f(n) = 21 + 7 = 28
[[5,2,6][7,4,1][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,6][3,8,5][4,1,0]]
Generated Nodes:
[[7,2,6][3,8,0][4,1,5]] - f(n) = 21 + 7 = 28
[[7,2,6][3,8,5][4,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,6][8,0,4][3,1,5]]
Generated Nodes:
[[7,0,6][8,2,4][3,1,5]] - f(n) = 21 + 8 = 29
[[7,2,6][8,4,0][3,1,5]] - Already visited Node!
[[7,2,6][0,8,4][3,1,5]] - f(n) = 21 + 7 = 28
[[7,2,6][8,1,4][3,0,5]] - f(n) =
                                  21 + 7 = 28
Node Chosen for Level 21 - [[0,2,6][7,4,5][8,3,1]]
Generated Nodes:
[[2,0,6][7,4,5][8,3,1]] - f(n) = 21 + 8 = 29
[[7,2,6][0,4,5][8,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[7,5,4][2,8,0][3,1,6]]
Generated Nodes:
[[7,5,0][2,8,4][3,1,6]] - f(n) = 20 + 8 = 28
```

```
[[7,5,4][2,0,8][3,1,6]] - Already visited Node!
[[7,5,4][2,8,6][3,1,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,5,4][2,1,8][3,0,6]]
Generated Nodes:
[[7,5,4][2,0,8][3,1,6]] - Already visited Node!
[[7,5,4][2,1,8][3,6,0]] - f(n) = 20 + 8 = 28
[[7,5,4][2,1,8][0,3,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,5,4][3,2,8][1,0,6]]
Generated Nodes:
[[7,5,4][3,0,8][1,2,6]] - f(n) = 20 + 8 = 28
[[7,5,4][3,2,8][1,6,0]] - f(n) = 20 + 8 = 28
[[7,5,4][3,2,8][0,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,2][8,4,6][5,3,1]]
Generated Nodes:
[[7,0,2][8,4,6][5,3,1]] - f(n) = 21 + 7 = 28
[[8,7,2][0,4,6][5,3,1]] - Already visited Node!
Node Chosen for Level 21 - [[0,3,7][5,4,2][1,8,6]]
Generated Nodes:
[[3,0,7][5,4,2][1,8,6]] - Already visited Node!
[[5,3,7][0,4,2][1,8,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[3,4,7][5,0,2][1,8,6]]
Generated Nodes:
[[3,0,7][5,4,2][1,8,6]] - Already visited Node!
[[3,4,7][5,2,0][1,8,6]] - f(n) = 21 + 7 = 28
[[3,4,7][0,5,2][1,8,6]] - f(n) = 21 + 6 = 27
[[3,4,7][5,8,2][1,0,6]] - f(n) =
                                  21 + 8 = 29
Node Chosen for Level 21 - [[7,2,1][3,8,5][6,4,0]]
Generated Nodes:
[[7,2,1][3,8,0][6,4,5]] - f(n) = 21 + 7 = 28
[[7,2,1][3,8,5][6,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,0][8,6,1][3,4,5]]
Generated Nodes:
```

```
[[7,0,2][8,6,1][3,4,5]] - f(n) = 21 + 8 = 29
[[7,2,1][8,6,0][3,4,5]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,1][7,6,5][8,3,4]]
Generated Nodes:
[[2,0,1][7,6,5][8,3,4]] - f(n) = 21 + 8 = 29
[[7,2,1][0,6,5][8,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,1][6,0,5][8,3,4]]
Generated Nodes:
[[7,0,1][6,2,5][8,3,4]] - f(n) = 21 + 8 = 29
[[7,2,1][6,5,0][8,3,4]] - Already visited Node!
[[7,2,1][0,6,5][8,3,4]] - Already visited Node!
[[7,2,1][6,3,5][8,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,2,4][8,1,5][3,6,0]]
Generated Nodes:
[[7,2,4][8,1,0][3,6,5]] - f(n) = 21 + 7 = 28
[[7,2,4][8,1,5][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,0][1,3,4][8,6,5]]
Generated Nodes:
[[7,0,2][1,3,4][8,6,5]] - f(n) = 21 + 8 = 29
[[7,2,4][1,3,0][8,6,5]] - Already visited Node!
Node Chosen for Level 21 - [[7,2,4][1,0,3][8,6,5]]
Generated Nodes:
[[7,0,4][1,2,3][8,6,5]] - f(n) = 21 + 8 = 29
[[7,2,4][1,3,0][8,6,5]] - Already visited Node!
[[7,2,4][0,1,3][8,6,5]] - f(n) = 21 + 7 = 28
[[7,2,4][1,6,3][8,0,5]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,4,7][5,0,2][8,3,6]]
Generated Nodes:
[[1,0,7][5,4,2][8,3,6]] - Already visited Node!
[[1,4,7][5,2,0][8,3,6]] - f(n) = 21 + 7 = 28
[[1,4,7][0,5,2][8,3,6]] - f(n) = 21 + 6 = 27
[[1,4,7][5,3,2][8,0,6]] - f(n) =
                                  21 + 7 = 28
```

```
Node Chosen for Level 21 - [[1,7,0][5,3,2][8,6,4]]
Generated Nodes:
[[1,0,7][5,3,2][8,6,4]] - f(n) = 21 + 7 = 28
[[1,7,2][5,3,0][8,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[1,7,2][5,0,3][8,6,4]]
Generated Nodes:
[[1,0,2][5,7,3][8,6,4]] - f(n) = 21 + 7 = 28
[[1,7,2][5,3,0][8,6,4]] - Already visited Node!
[[1,7,2][0,5,3][8,6,4]] - Already visited Node!
[[1,7,2][5,6,3][8,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[5,3,2][0,7,6][4,8,1]]
Generated Nodes:
[[0,3,2][5,7,6][4,8,1]] - f(n) = 22 + 6 = 28
[[5,3,2][7,0,6][4,8,1]] - Already visited Node!
[[5,3,2][4,7,6][0,8,1]] - f(n) = 22 + 5 = 27
Node Chosen for Level 21 - [[7,6,0][4,2,5][8,3,1]]
Generated Nodes:
[[7,0,6][4,2,5][8,3,1]] - Already visited Node!
[[7,6,5][4,2,0][8,3,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,6,5][4,2,1][8,3,0]]
Generated Nodes:
[[7,6,5][4,2,0][8,3,1]] - Already visited Node!
[[7,6,5][4,2,1][8,0,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,6,5][4,3,2][8,1,0]]
Generated Nodes:
[[7,6,5][4,3,0][8,1,2]] - f(n) = 21 + 7 = 28
[[7,6,5][4,3,2][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,0][4,1,2][8,6,3]]
Generated Nodes:
[[7,0,5][4,1,2][8,6,3]] - f(n) = 21 + 7 = 28
[[7,5,2][4,1,0][8,6,3]] - Already visited Node!
```

```
Node Chosen for Level 21 - [[7,5,2][4,1,3][8,6,0]]
Generated Nodes:
[[7,5,2][4,1,0][8,6,3]] - Already visited Node!
[[7,5,2][4,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,2][7,0,6][1,4,8]]
Generated Nodes:
[[5,0,2][7,3,6][1,4,8]] - Already visited Node!
[[5,3,2][7,6,0][1,4,8]] - f(n) = 21 + 8 = 29
[[5,3,2][0,7,6][1,4,8]] - f(n) = 21 + 7 = 28
[[5,3,2][7,4,6][1,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][1,0,6][4,3,8]]
Generated Nodes:
[[7,0,2][1,5,6][4,3,8]] - f(n) = 21 + 6 = 27
[[7,5,2][1,6,0][4,3,8]] - f(n) = 21 + 8 = 29
[[7,5,2][0,1,6][4,3,8]] - f(n) = 21 + 7 = 28
[[7,5,2][1,3,6][4,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,2][7,0,6][3,1,8]]
Generated Nodes:
[[5,0,2][7,4,6][3,1,8]] - Already visited Node!
[[5,4,2][7,6,0][3,1,8]] - f(n) = 21 + 8 = 29
[[5,4,2][0,7,6][3,1,8]] - f(n) = 21 + 7 = 28
[[5,4,2][7,1,6][3,0,8]] - f(n) = 21 + 7 = 28
Node Chosen for Level 20 - [[8,0,5][6,7,2][3,4,1]]
Generated Nodes:
[[8,5,0][6,7,2][3,4,1]] - f(n) = 20 + 8 = 28
[[0,8,5][6,7,2][3,4,1]] - f(n) = 20 + 8 = 28
[[8,7,5][6,0,2][3,4,1]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,5][6,2,0][3,4,1]]
Generated Nodes:
[[8,7,0][6,2,5][3,4,1]] - f(n) = 20 + 8 = 28
[[8,7,5][6,0,2][3,4,1]] - Already visited Node!
[[8,7,5][6,2,1][3,4,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,7,5][6,4,2][3,0,1]]
```

```
Generated Nodes:
[[8,7,5][6,0,2][3,4,1]] - Already visited Node!
[[8,7,5][6,4,2][3,1,0]] - f(n) = 20 + 8 = 28
[[8,7,5][6,4,2][0,3,1]] - f(n) =
```

Node Chosen for Level 20 - [[8,7,5][3,6,2][4,0,1]]

20 + 8 = 28

Generated Nodes:

```
[[8,7,5][3,0,2][4,6,1]] - f(n) = 20 + 8 = 28
[[8,7,5][3,6,2][4,1,0]] - f(n) = 20 + 8 = 28
[[8,7,5][3,6,2][0,4,1]] - Already visited Node!
```

Node Chosen for Level 20 - [[7,6,5][8,2,1][3,0,4]]

Generated Nodes:

[[7,6,5][8,0,1][3,2,4]] - f(n) = 20 + 8 = 28[[7,6,5][8,2,1][3,4,0]] - Already visited Node! [[7,6,5][8,2,1][0,3,4]] - f(n) = 20 + 8 = 28

Node Chosen for Level 20 - [[6,0,5][7,8,2][3,4,1]]

Generated Nodes:

[[6,5,0][7,8,2][3,4,1]] - f(n) = 20 + 8 = 28[[0,6,5][7,8,2][3,4,1]] - Already visited Node! [[6,8,5][7,0,2][3,4,1]] - f(n) = 20 + 8 = 28

Node Chosen for Level 20 - [[7,6,5][3,8,2][4,0,1]]

Generated Nodes:

[[7,6,5][3,0,2][4,8,1]] - Already visited Node! [[7,6,5][3,8,2][4,1,0]] - f(n) = 20 + 8 = 28[[7,6,5][3,8,2][0,4,1]] - Already visited Node!

Node Chosen for Level 20 - [[7,6,5][8,4,0][3,1,2]]

Generated Nodes:

```
[[7,6,0][8,4,5][3,1,2]] - f(n) = 20 + 8 = 28
[[7,6,5][8,0,4][3,1,2]] - f(n) = 20 + 8 = 28
[[7,6,5][8,4,2][3,1,0]] - Already visited Node!
```

Node Chosen for Level 20 - [[7,6,5][0,4,2][8,3,1]]

```
[[0,6,5][7,4,2][8,3,1]] - f(n) = 20 + 8 = 28
[[7,6,5][4,0,2][8,3,1]] - Already visited Node!
```

```
[[7,6,5][8,4,2][0,3,1]] - Already visited Node!
Node Chosen for Level 20 - [[8,5,2][3,7,0][1,4,6]]
Generated Nodes:
[[8,5,0][3,7,2][1,4,6]] - Already visited Node!
[[8,5,2][3,0,7][1,4,6]] - f(n) = 20 + 8 = 28
[[8,5,2][3,7,6][1,4,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[3,8,5][0,7,2][1,4,6]]
Generated Nodes:
[[0,8,5][3,7,2][1,4,6]] - Already visited Node!
[[3,8,5][7,0,2][1,4,6]] - f(n) = 20 + 8 = 28
[[3,8,5][1,7,2][0,4,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,0,7][3,2,5][1,4,6]]
Generated Nodes:
[[8,7,0][3,2,5][1,4,6]] - Already visited Node!
[[0,8,7][3,2,5][1,4,6]] - f(n) = 20 + 8 = 28
[[8,2,7][3,0,5][1,4,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,0,5][8,3,2][1,4,6]]
Generated Nodes:
[[7,5,0][8,3,2][1,4,6]] - f(n) = 20 + 8 = 28
[[0,7,5][8,3,2][1,4,6]] - Already visited Node!
[[7,3,5][8,0,2][1,4,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,7,5][1,3,2][4,0,6]]
Generated Nodes:
[[8,7,5][1,0,2][4,3,6]] - Already visited Node!
[[8,7,5][1,3,2][4,6,0]] - f(n) = 20 + 8 = 28
[[8,7,5][1,3,2][0,4,6]] - Already visited Node!
Node Chosen for Level 20 - [[8,0,7][3,4,5][1,6,2]]
Generated Nodes:
[[8,7,0][3,4,5][1,6,2]] - Already visited Node!
[[0,8,7][3,4,5][1,6,2]] - f(n) = 20 + 8 = 28
[[8,4,7][3,0,5][1,6,2]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,0,5][3,7,4][1,6,2]]
```

```
Generated Nodes:
```

```
[[8,5,0][3,7,4][1,6,2]] - f(n) = 20 + 8 = 28

[[0,8,5][3,7,4][1,6,2]] - f(n) = 20 + 8 = 28

[[8,7,5][3,0,4][1,6,2]] - Already visited Node!
```

Node Chosen for Level 20 - [[8,7,5][0,3,4][1,6,2]]

Generated Nodes:

```
[[0,7,5][8,3,4][1,6,2]] - f(n) = 20 + 8 = 28

[[8,7,5][3,0,4][1,6,2]] - Already visited Node!

[[8,7,5][1,3,4][0,6,2]] - f(n) = 20 + 8 = 28
```

Node Charan for Lavel 20 [[0.7.5][2.6.4][1.0.2]]

Node Chosen for Level 20 - [[8,7,5][3,6,4][1,0,2]]

Generated Nodes:

[[8,7,5][3,0,4][1,6,2]] - Already visited Node!

$$[[8,7,5][3,6,4][1,2,0]] - f(n) = 20 + 8 = 28$$

[[8,7,5][3,6,4][0,1,2]] - f(n) = 20 + 8 = 28

Node Chosen for Level 20 - [[8,0,4][2,7,5][3,1,6]]

Generated Nodes:

```
[[8,4,0][2,7,5][3,1,6]] - f(n) = 20 + 8 = 28

[[0,8,4][2,7,5][3,1,6]] - f(n) = 20 + 8 = 28

[[8,7,4][2,0,5][3,1,6]] - Already visited Node!
```

Node Character for Lavel 20 [[0.7.4][2.4.5][2.0.6]]

Node Chosen for Level 20 - [[8,7,4][2,1,5][3,0,6]]

Generated Nodes:

[[8,7,4][2,0,5][3,1,6]] - Already visited Node!

$$[[8,7,4][2,1,5][3,6,0]] - f(n) = 20 + 8 = 28$$

$$[[8,7,4][2,1,5][0,3,6]] - f(n) = 20 + 8 = 28$$

Node Chosen for Level 20 - [[8,7,4][3,2,5][1,0,6]]

Generated Nodes:

```
[[8,7,4][3,0,5][1,2,6]] - f(n) = 20 + 8 = 28

[[8,7,4][3,2,5][1,6,0]] - f(n) = 20 + 8 = 28

[[8,7,4][3,2,5][0,1,6]] - Already visited Node!
```

Node Chosen for Level 20 - [[4,5,2][0,7,8][3,1,6]]

```
[[0,5,2][4,7,8][3,1,6]] - f(n) = 20 + 7 = 27
[[4,5,2][7,0,8][3,1,6]] - Already visited Node!
```

```
[[4,5,2][3,7,8][0,1,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[4,5,2][7,1,8][3,0,6]]
Generated Nodes:
[[4,5,2][7,0,8][3,1,6]] - Already visited Node!
[[4,5,2][7,1,8][3,6,0]] - f(n) = 20 + 8 = 28
[[4,5,2][7,1,8][0,3,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[4,0,8][7,2,5][3,1,6]]
Generated Nodes:
[[4,8,0][7,2,5][3,1,6]] - Already visited Node!
[[0,4,8][7,2,5][3,1,6]] - f(n) = 20 + 8 = 28
[[4,2,8][7,0,5][3,1,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[4,8,5][3,7,2][1,0,6]]
Generated Nodes:
[[4,8,5][3,0,2][1,7,6]] - f(n) = 20 + 8 = 28
[[4,8,5][3,7,2][1,6,0]] - f(n) = 20 + 8 = 28
[[4,8,5][3,7,2][0,1,6]] - Already visited Node!
Node Chosen for Level 20 - [[4,8,5][7,1,0][3,6,2]]
Generated Nodes:
[[4,8,0][7,1,5][3,6,2]] - f(n) = 20 + 8 = 28
[[4,8,5][7,0,1][3,6,2]] - f(n) = 20 + 8 = 28
[[4,8,5][7,1,2][3,6,0]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,4][3,8,5][1,6,2]]
Generated Nodes:
[[7,4,0][3,8,5][1,6,2]] - Already visited Node!
[[0,7,4][3,8,5][1,6,2]] - f(n) = 20 + 8 = 28
[[7,8,4][3,0,5][1,6,2]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,0,5][3,4,8][1,6,2]]
Generated Nodes:
[[7,5,0][3,4,8][1,6,2]] - f(n) = 20 + 8 = 28
[[0,7,5][3,4,8][1,6,2]] - f(n) = 20 + 8 = 28
[[7,4,5][3,0,8][1,6,2]] - Already visited Node!
Node Chosen for Level 20 - [[7,4,5][0,3,8][1,6,2]]
```

Node Chosen for Level 20 - [[7,1,4][0,8,5][3,6,2]]

Generated Nodes:

```
[[0,1,4][7,8,5][3,6,2]] - f(n) = 20 + 8 = 28

[[7,1,4][8,0,5][3,6,2]] - Already visited Node!

[[7,1,4][3,8,5][0,6,2]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[7,1,4][8,6,5][3,0,2]]

Generated Nodes:

```
[[7,1,4][8,0,5][3,6,2]] - Already visited Node! [[7,1,4][8,6,5][3,2,0]] - f(n) = 20 + 8 = 28 [[7,1,4][8,6,5][0,3,2]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[7,5,1][8,4,0][3,6,2]]

Generated Nodes:

```
[[7,5,0][8,4,1][3,6,2]] - Already visited Node! [[7,5,1][8,0,4][3,6,2]] - f(n) = 20 + 8 = 28 [[7,5,1][8,4,2][3,6,0]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[8,7,5][0,4,1][3,6,2]]

```
[[0,7,5][8,4,1][3,6,2]] - Already visited Node! [[8,7,5][4,0,1][3,6,2]] - Already visited Node!
```

```
[[8,7,5][3,4,1][0,6,2]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[4,0,5][7,8,1][3,6,2]]
Generated Nodes:
[[4,5,0][7,8,1][3,6,2]] - f(n) = 20 + 8 = 28
[[0,4,5][7,8,1][3,6,2]] - Already visited Node!
[[4,8,5][7,0,1][3,6,2]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,4,5][3,8,1][6,0,2]]
Generated Nodes:
[[7,4,5][3,0,1][6,8,2]] - f(n) = 20 + 7 = 27
[[7,4,5][3,8,1][6,2,0]] - f(n) = 20 + 8 = 28
[[7,4,5][3,8,1][0,6,2]] - Already visited Node!
Node Chosen for Level 20 - [[7,4,5][0,6,1][8,3,2]]
Generated Nodes:
[[0,4,5][7,6,1][8,3,2]] - f(n) = 20 + 8 = 28
[[7,4,5][6,0,1][8,3,2]] - f(n) = 20 + 8 = 28
[[7,4,5][8,6,1][0,3,2]] - Already visited Node!
Node Chosen for Level 20 - [[4,5,2][7,1,0][8,3,6]]
Generated Nodes:
[[4,5,0][7,1,2][8,3,6]] - Already visited Node!
[[4,5,2][7,0,1][8,3,6]] - f(n) = 20 + 8 = 28
[[4,5,2][7,1,6][8,3,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[4,1,5][7,2,0][8,3,6]]
Generated Nodes:
[[4,1,0][7,2,5][8,3,6]] - f(n) = 20 + 8 = 28
[[4,1,5][7,0,2][8,3,6]] - Already visited Node!
[[4,1,5][7,2,6][8,3,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[4,1,5][0,7,2][8,3,6]]
Generated Nodes:
[[0,1,5][4,7,2][8,3,6]] - Already visited Node!
[[4,1,5][7,0,2][8,3,6]] - Already visited Node!
[[4,1,5][8,7,2][0,3,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[4,1,5][7,3,2][8,0,6]]
```

```
Generated Nodes:
```

```
[[4,1,5][7,0,2][8,3,6]] - Already visited Node! [[4,1,5][7,3,2][8,6,0]] - f(n) = 20 + 8 = 28 [[4,1,5][7,3,2][0,8,6]] - f(n) = 20 + 7 = 27
```

Node Chasen for Lovel 20 [[7 4 5][1 2 0][0 6 2]]

Node Chosen for Level 20 - [[7,4,5][1,3,0][8,6,2]]

Generated Nodes:

```
[[7,4,0][1,3,5][8,6,2]] - f(n) = 20 + 8 = 28

[[7,4,5][1,0,3][8,6,2]] - f(n) = 20 + 8 = 28

[[7,4,5][1,3,2][8,6,0]] - Already visited Node!
```

Node Chosen for Level 20 - [[7,5,8][3,4,2][1,0,6]]

Generated Nodes:

[[7,5,8][3,0,2][1,4,6]] - f(n) = 20 + 8 = 28

[[7,5,8][3,4,2][1,6,0]] - f(n) = 20 + 8 = 28

[[7,5,8][3,4,2][0,1,6]] - Already visited Node!

Node Chosen for Level 20 - [[4,0,8][5,7,2][3,1,6]]

Generated Nodes:

```
[[4,8,0][5,7,2][3,1,6]] - f(n) = 20 + 8 = 28

[[0,4,8][5,7,2][3,1,6]] - Already visited Node!

[[4,7,8][5,0,2][3,1,6]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[5,4,8][3,7,2][1,0,6]]

Generated Nodes:

[[5,4,8][3,0,2][1,7,6]] - f(n) = 20 + 8 = 28

[[5,4,8][3,7,2][1,6,0]] - f(n) = 20 + 8 = 28

[[5,4,8][3,7,2][0,1,6]] - Already visited Node!

Node Chosen for Level 20 - [[5,4,8][7,1,0][3,6,2]]

Generated Nodes:

```
[[5,4,0][7,1,8][3,6,2]] - f(n) = 20 + 8 = 28

[[5,4,8][7,0,1][3,6,2]] - f(n) = 20 + 8 = 28

[[5,4,8][7,1,2][3,6,0]] - Already visited Node!
```

Node Chosen for Level 20 - [[8,0,7][5,4,2][3,1,6]]

```
[[8,7,0][5,4,2][3,1,6]] - Already visited Node! [[0,8,7][5,4,2][3,1,6]] - f(n) = 20 + 8 = 28
```

```
[[8,4,7][5,0,2][3,1,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,7,2][0,1,4][5,3,6]]
Generated Nodes:
[[0,7,2][8,1,4][5,3,6]] - f(n) = 20 + 8 = 28
[[8,7,2][1,0,4][5,3,6]] - f(n) = 20 + 8 = 28
[[8,7,2][5,1,4][0,3,6]] - Already visited Node!
Node Chosen for Level 20 - [[3,5,2][0,8,4][1,7,6]]
Generated Nodes:
[[0,5,2][3,8,4][1,7,6]] - Already visited Node!
[[3,5,2][8,0,4][1,7,6]] - f(n) = 20 + 8 = 28
[[3,5,2][1,8,4][0,7,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,0,8][3,4,2][1,7,6]]
Generated Nodes:
[[5,8,0][3,4,2][1,7,6]] - Already visited Node!
[[0,5,8][3,4,2][1,7,6]] - f(n) = 20 + 8 = 28
[[5,4,8][3,0,2][1,7,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,0,2][5,3,4][1,7,6]]
Generated Nodes:
[[8,2,0][5,3,4][1,7,6]] - f(n) = 20 + 7 = 27
[[0,8,2][5,3,4][1,7,6]] - Already visited Node!
[[8,3,2][5,0,4][1,7,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,0,8][3,7,2][1,6,4]]
Generated Nodes:
[[5,8,0][3,7,2][1,6,4]] - Already visited Node!
[[0,5,8][3,7,2][1,6,4]] - f(n) = 20 + 8 = 28
[[5,7,8][3,0,2][1,6,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,0,2][3,8,7][1,6,4]]
Generated Nodes:
[[5,2,0][3,8,7][1,6,4]] - f(n) = 20 + 7 = 27
[[0,5,2][3,8,7][1,6,4]] - f(n) = 20 + 8 = 28
[[5,8,2][3,0,7][1,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[5,8,2][0,3,7][1,6,4]]
```

```
Generated Nodes:
```

```
[[0,8,2][5,3,7][1,6,4]] - f(n) = 20 + 8 = 28

[[5,8,2][3,0,7][1,6,4]] - Already visited Node!

[[5,8,2][1,3,7][0,6,4]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[5,8,2][3,6,7][1,0,4]]

Generated Nodes:

```
[[5,8,2][3,0,7][1,6,4]] - Already visited Node! [[5,8,2][3,6,7][1,4,0]] - f(n) = 20 + 8 = 28 [[5,8,2][3,6,7][0,1,4]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[7,5,8][0,1,2][3,6,4]]

Generated Nodes:

```
[[0,5,8][7,1,2][3,6,4]] - Already visited Node! [[7,5,8][1,0,2][3,6,4]] - f(n) = 20 + 8 = 28 [[7,5,8][3,1,2][0,6,4]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[5,1,8][7,2,0][3,6,4]]

Generated Nodes:

```
[[5,1,0][7,2,8][3,6,4]] - f(n) = 20 + 8 = 28

[[5,1,8][7,0,2][3,6,4]] - Already visited Node!

[[5,1,8][7,2,4][3,6,0]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[5,1,8][0,7,2][3,6,4]]

Generated Nodes:

```
[[0,1,8][5,7,2][3,6,4]] - f(n) = 20 + 8 = 28

[[5,1,8][7,0,2][3,6,4]] - Already visited Node!

[[5,1,8][3,7,2][0,6,4]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[5,1,8][7,6,2][3,0,4]]

Generated Nodes:

```
[[5,1,8][7,0,2][3,6,4]] - Already visited Node! [[5,1,8][7,6,2][3,4,0]] - f(n) = 20 + 8 = 28 [[5,1,8][7,6,2][0,3,4]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[5,8,2][3,7,1][6,0,4]]

```
[[5,8,2][3,0,1][6,7,4]] - f(n) = 20 + 8 = 28
[[5,8,2][3,7,1][6,4,0]] - f(n) = 20 + 8 = 28
```

```
[[5,8,2][3,7,1][0,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[3,0,5][8,7,2][1,6,4]]
Generated Nodes:
[[3,5,0][8,7,2][1,6,4]] - f(n) = 20 + 8 = 28
[[0,3,5][8,7,2][1,6,4]] - f(n) = 20 + 8 = 28
[[3,7,5][8,0,2][1,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[3,7,5][8,2,0][1,6,4]]
Generated Nodes:
[[3,7,0][8,2,5][1,6,4]] - f(n) = 20 + 8 = 28
[[3,7,5][8,0,2][1,6,4]] - Already visited Node!
[[3,7,5][8,2,4][1,6,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[3,7,5][8,6,2][1,0,4]]
Generated Nodes:
[[3,7,5][8,0,2][1,6,4]] - Already visited Node!
[[3,7,5][8,6,2][1,4,0]] - f(n) = 20 + 8 = 28
[[3,7,5][8,6,2][0,1,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[3,7,5][1,8,2][6,0,4]]
Generated Nodes:
[[3,7,5][1,0,2][6,8,4]] - f(n) = 20 + 7 = 27
[[3,7,5][1,8,2][6,4,0]] - f(n) = 20 + 8 = 28
[[3,7,5][1,8,2][0,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,8][3,2,5][1,6,4]]
Generated Nodes:
[[7,8,0][3,2,5][1,6,4]] - Already visited Node!
[[0,7,8][3,2,5][1,6,4]] - f(n) = 20 + 8 = 28
[[7,2,8][3,0,5][1,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,8,5][3,2,4][1,0,6]]
Generated Nodes:
[[7,8,5][3,0,4][1,2,6]] - f(n) = 20 + 8 = 28
[[7,8,5][3,2,4][1,6,0]] - Already visited Node!
[[7,8,5][3,2,4][0,1,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,0,5][7,3,2][1,6,4]]
```

```
Generated Nodes:
```

```
[[8,5,0][7,3,2][1,6,4]] - f(n) = 20 + 8 = 28
[[0,8,5][7,3,2][1,6,4]] - Already visited Node!
[[8,3,5][7,0,2][1,6,4]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[7,8,5][1,3,2][6,0,4]]

Generated Nodes:

```
[[7,8,5][1,0,2][6,3,4]] - f(n) = 20 + 8 = 28
[[7,8,5][1,3,2][6,4,0]] - f(n) = 20 + 8 = 28
[[7,8,5][1,3,2][0,6,4]] - Already visited Node!
```

Node Chosen for Level 20 - [[7,8,5][3,6,0][1,4,2]]

Generated Nodes:

[[7,8,0][3,6,5][1,4,2]] - f(n) = 20 + 8 = 28[[7,8,5][3,0,6][1,4,2]] - f(n) = 20 + 7 = 27

[[7,8,5][3,6,2][1,4,0]] - Already visited Node!

Node Chosen for Level 20 - [[7,8,5][0,6,2][3,1,4]]

Generated Nodes:

```
[[0,8,5][7,6,2][3,1,4]] - f(n) = 20 + 8 = 28
[[7,8,5][6,0,2][3,1,4]] - f(n) = 20 + 8 = 28
[[7,8,5][3,6,2][0,1,4]] - Already visited Node!
```

Node Chosen for Level 20 - [[5,3,2][7,8,0][1,6,4]]

Generated Nodes:

[[5,3,0][7,8,2][1,6,4]] - f(n) = 20 + 8 = 28[[5,3,2][7,0,8][1,6,4]] - Already visited Node! [[5,3,2][7,8,4][1,6,0]] - Already visited Node!

Node Chosen for Level 20 - [[5,3,2][0,7,8][1,6,4]]

Generated Nodes:

```
[[0,3,2][5,7,8][1,6,4]] - f(n) = 20 + 8 = 28
[[5,3,2][7,0,8][1,6,4]] - Already visited Node!
[[5,3,2][1,7,8][0,6,4]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[5,3,2][7,6,8][1,0,4]]

```
[[5,3,2][7,0,8][1,6,4]] - Already visited Node!
[[5,3,2][7,6,8][1,4,0]] - f(n) = 20 + 8 = 28
```

```
[[5,3,2][7,6,8][0,1,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,5,2][1,8,0][6,3,4]]
Generated Nodes:
[[7,5,0][1,8,2][6,3,4]] - f(n) = 20 + 8 = 28
[[7,5,2][1,0,8][6,3,4]] - Already visited Node!
[[7,5,2][1,8,4][6,3,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,5,2][0,1,8][6,3,4]]
Generated Nodes:
[[0,5,2][7,1,8][6,3,4]] - f(n) = 20 + 8 = 28
[[7,5,2][1,0,8][6,3,4]] - Already visited Node!
[[7,5,2][6,1,8][0,3,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,5,2][1,3,0][6,4,8]]
Generated Nodes:
[[7,5,0][1,3,2][6,4,8]] - f(n) = 20 + 8 = 28
[[7,5,2][1,0,3][6,4,8]] - f(n) = 20 + 8 = 28
[[7,5,2][1,3,8][6,4,0]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,5][3,6,2][1,4,8]]
Generated Nodes:
[[7,5,0][3,6,2][1,4,8]] - Already visited Node!
[[0,7,5][3,6,2][1,4,8]] - f(n) = 20 + 8 = 28
[[7,6,5][3,0,2][1,4,8]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,0,2][7,6,8][3,1,4]]
Generated Nodes:
[[5,2,0][7,6,8][3,1,4]] - f(n) = 20 + 7 = 27
[[0,5,2][7,6,8][3,1,4]] - Already visited Node!
[[5,6,2][7,0,8][3,1,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,5,2][6,8,0][3,1,4]]
Generated Nodes:
[[7,5,0][6,8,2][3,1,4]] - f(n) = 20 + 8 = 28
[[7,5,2][6,0,8][3,1,4]] - Already visited Node!
[[7,5,2][6,8,4][3,1,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,5,2][6,1,8][3,0,4]]
```

```
Generated Nodes:
```

```
[[7,5,2][6,0,8][3,1,4]] - Already visited Node! [[7,5,2][6,1,8][3,4,0]] - f(n) = 20 + 8 = 28 [[7,5,2][6,1,8][0,3,4]] - f(n) = 20 + 8 = 28
```

Node Character for Lavel 20 . [[0 F 2][4 7 0][2 C 4]]

Node Chosen for Level 20 - [[8,5,2][1,7,0][3,6,4]]

Generated Nodes:

```
[[8,5,0][1,7,2][3,6,4]] - Already visited Node! [[8,5,2][1,0,7][3,6,4]] - f(n) = 20 + 8 = 28 [[8,5,2][1,7,4][3,6,0]] - f(n) = 20 + 8 = 28
```

Node Chases for Lovel 20 [[0 0 7][1 2 5][2 6 4]]

Node Chosen for Level 20 - [[8,0,7][1,2,5][3,6,4]]

Generated Nodes:

[[8,7,0][1,2,5][3,6,4]] - Already visited Node!

$$[[0,8,7][1,2,5][3,6,4]] - f(n) = 20 + 8 = 28$$

[[8,2,7][1,0,5][3,6,4]] - f(n) = 20 + 7 = 27

Node Chosen for Level 20 - [[8,7,5][1,2,4][3,0,6]]

Generated Nodes:

```
[[8,7,5][1,0,4][3,2,6]] - f(n) = 20 + 8 = 28

[[8,7,5][1,2,4][3,6,0]] - Already visited Node!

[[8,7,5][1,2,4][0,3,6]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[8,7,5][1,6,0][3,4,2]]

Generated Nodes:

[[8,7,0][1,6,5][3,4,2]] - f(n) = 20 + 8 = 28

[[8,7,5][1,0,6][3,4,2]] - f(n) = 20 + 7 = 27

[[8,7,5][1,6,2][3,4,0]] — Already visited Node!

Node Chosen for Level 20 - [[8,7,5][0,6,2][1,3,4]]

Generated Nodes:

```
[[0,7,5][8,6,2][1,3,4]] - f(n) = 20 + 8 = 28

[[8,7,5][6,0,2][1,3,4]] - f(n) = 20 + 8 = 28

[[8,7,5][1,6,2][0,3,4]] - Already visited Node!
```

Node Chosen for Level 20 - [[8,0,5][3,7,2][6,1,4]]

$$[[8,5,0][3,7,2][6,1,4]] - f(n) = 20 + 8 = 28$$

 $[[0,8,5][3,7,2][6,1,4]] - f(n) = 20 + 8 = 28$

```
[[8,7,5][3,0,2][6,1,4]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,5][3,2,0][6,1,4]]
Generated Nodes:
[[8,7,0][3,2,5][6,1,4]] - f(n) = 20 + 8 = 28
[[8,7,5][3,0,2][6,1,4]] - Already visited Node!
[[8,7,5][3,2,4][6,1,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,7,5][0,3,2][6,1,4]]
Generated Nodes:
[[0,7,5][8,3,2][6,1,4]] - f(n) = 20 + 8 = 28
[[8,7,5][3,0,2][6,1,4]] - Already visited Node!
[[8,7,5][6,3,2][0,1,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[8,7,5][3,1,0][6,4,2]]
Generated Nodes:
[[8,7,0][3,1,5][6,4,2]] - f(n) = 20 + 8 = 28
[[8,7,5][3,0,1][6,4,2]] - f(n) = 20 + 8 = 28
[[8,7,5][3,1,2][6,4,0]] - Already visited Node!
Node Chosen for Level 20 - [[8,7,1][0,2,5][3,6,4]]
Generated Nodes:
[[0,7,1][8,2,5][3,6,4]] - Already visited Node!
[[8,7,1][2,0,5][3,6,4]] - f(n) = 20 + 8 = 28
[[8,7,1][3,2,5][0,6,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,0,5][8,1,4][3,2,6]]
Generated Nodes:
[[7,5,0][8,1,4][3,2,6]] - f(n) = 20 + 8 = 28
[[0,7,5][8,1,4][3,2,6]] - f(n) = 20 + 8 = 28
[[7,1,5][8,0,4][3,2,6]] - Already visited Node!
Node Chosen for Level 20 - [[7,1,5][8,4,0][3,2,6]]
Generated Nodes:
[[7,1,0][8,4,5][3,2,6]] - f(n) = 20 + 8 = 28
[[7,1,5][8,0,4][3,2,6]] - Already visited Node!
[[7,1,5][8,4,6][3,2,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,1,5][0,8,4][3,2,6]]
```

```
Generated Nodes:
[[0,1,5][7,8,4][3,2,6]] - f(n) = 20 + 8 = 28
[[7,1,5][8,0,4][3,2,6]] - Already visited Node!
[[7,1,5][3,8,4][0,2,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,1,5][0,2,4][8,3,6]]
Generated Nodes:
[[0,1,5][7,2,4][8,3,6]] - f(n) = 20 + 8 = 28
[[7,1,5][2,0,4][8,3,6]] - f(n) = 20 + 8 = 28
[[7,1,5][8,2,4][0,3,6]] - Already visited Node!
Node Chosen for Level 20 - [[7,1,5][3,8,0][6,4,2]]
Generated Nodes:
[[7,1,0][3,8,5][6,4,2]] - f(n) = 20 + 8 = 28
[[7,1,5][3,0,8][6,4,2]] - f(n) = 20 + 8 = 28
[[7,1,5][3,8,2][6,4,0]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,1][8,6,5][3,4,2]]
Generated Nodes:
[[7,1,0][8,6,5][3,4,2]] - Already visited Node!
[[0,7,1][8,6,5][3,4,2]] - f(n) = 20 + 8 = 28
[[7,6,1][8,0,5][3,4,2]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,0,5][6,1,2][8,3,4]]
```

Generated Nodes:

```
[[7,5,0][6,1,2][8,3,4]] - Already visited Node! [[0,7,5][6,1,2][8,3,4]] - f(n) = 20 + 8 = 28 [[7,1,5][6,0,2][8,3,4]] - Already visited Node!
```

Node Chosen for Level 20 - [[7,1,5][6,2,0][8,3,4]]

Generated Nodes:

```
[[7,1,0][6,2,5][8,3,4]] - f(n) = 20 + 8 = 28

[[7,1,5][6,0,2][8,3,4]] - Already visited Node!

[[7,1,5][6,2,4][8,3,0]] - f(n) = 20 + 8 = 28
```

Node Chosen for Level 20 - [[7,1,5][6,3,2][8,0,4]]

```
[[7,1,5][6,0,2][8,3,4]] - Already visited Node! [[7,1,5][6,3,2][8,4,0]] - f(n) = 20 + 8 = 28
```

```
[[7,1,5][6,3,2][0,8,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,8,2][3,7,1][6,0,4]]
Generated Nodes:
[[5,8,2][3,0,1][6,7,4]] - f(n) = 20 + 8 = 28
[[5,8,2][3,7,1][6,4,0]] - f(n) = 20 + 8 = 28
[[5,8,2][3,7,1][0,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,0,5][3,8,2][6,4,1]]
Generated Nodes:
[[7,5,0][3,8,2][6,4,1]] - Already visited Node!
[[0,7,5][3,8,2][6,4,1]] - f(n) = 20 + 8 = 28
[[7,8,5][3,0,2][6,4,1]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,5,2][0,3,8][6,4,1]]
Generated Nodes:
[[0,5,2][7,3,8][6,4,1]] - f(n) = 20 + 8 = 28
[[7,5,2][3,0,8][6,4,1]] - Already visited Node!
[[7,5,2][6,3,8][0,4,1]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,5,2][3,4,8][6,0,1]]
Generated Nodes:
[[7,5,2][3,0,8][6,4,1]] - Already visited Node!
[[7,5,2][3,4,8][6,1,0]] - f(n) = 20 + 8 = 28
[[7,5,2][3,4,8][0,6,1]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,6,2][7,1,0][8,3,4]]
Generated Nodes:
[[5,6,0][7,1,2][8,3,4]] - f(n) = 20 + 8 = 28
[[5,6,2][7,0,1][8,3,4]] - Already visited Node!
[[5,6,2][7,1,4][8,3,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,6,2][0,7,1][8,3,4]]
Generated Nodes:
[[0,6,2][5,7,1][8,3,4]] - f(n) = 20 + 8 = 28
[[5,6,2][7,0,1][8,3,4]] - Already visited Node!
[[5,6,2][8,7,1][0,3,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,6,2][7,3,1][8,0,4]]
```

```
Generated Nodes:
[[5,6,2][7,0,1][8,3,4]] - Already visited Node!
[[5,6,2][7,3,1][8,4,0]] - f(n) = 20 + 8 = 28
[[5,6,2][7,3,1][0,8,4]] - f(n) =
                                20 + 7 = 27
Node Chosen for Level 20 - [[7,0,5][6,1,2][8,3,4]]
Generated Nodes:
[[7,5,0][6,1,2][8,3,4]] - Already visited Node!
[[0,7,5][6,1,2][8,3,4]] - f(n) = 20 + 8 = 28
[[7,1,5][6,0,2][8,3,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,5,2][6,1,4][8,0,3]]
Generated Nodes:
[[7,5,2][6,0,4][8,1,3]] - f(n) = 20 + 8 = 28
[[7,5,2][6,1,4][8,3,0]] - Already visited Node!
[[7,5,2][6,1,4][0,8,3]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,5,2][6,3,0][8,4,1]]
Generated Nodes:
[[7,5,0][6,3,2][8,4,1]] - f(n) = 20 + 8 = 28
[[7,5,2][6,0,3][8,4,1]] - f(n) = 20 + 8 = 28
[[7,5,2][6,3,1][8,4,0]] - Already visited Node!
Node Chosen for Level 20 - [[7,5,1][0,4,2][8,3,6]]
Generated Nodes:
[[0,5,1][7,4,2][8,3,6]] - Already visited Node!
[[7,5,1][4,0,2][8,3,6]] - f(n) = 20 + 7 = 27
[[7,5,1][8,4,2][0,3,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,4,1][7,2,0][8,3,6]]
Generated Nodes:
[[5,4,0][7,2,1][8,3,6]] - Already visited Node!
[[5,4,1][7,0,2][8,3,6]] - Already visited Node!
[[5,4,1][7,2,6][8,3,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,4,1][0,7,2][8,3,6]]
Generated Nodes:
[[0,4,1][5,7,2][8,3,6]] - f(n) = 20 + 8 = 28
```

[[5,4,1][7,0,2][8,3,6]] - Already visited Node!

```
[[5,4,1][8,7,2][0,3,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,4,1][7,3,2][8,0,6]]
Generated Nodes:
[[5,4,1][7,0,2][8,3,6]] - Already visited Node!
[[5,4,1][7,3,2][8,6,0]] - f(n) = 20 + 8 = 28
[[5,4,1][7,3,2][0,8,6]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,0,2][8,1,4][3,7,6]]
Generated Nodes:
[[5,2,0][8,1,4][3,7,6]] - f(n) = 20 + 7 = 27
[[0,5,2][8,1,4][3,7,6]] - f(n) = 20 + 8 = 28
[[5,1,2][8,0,4][3,7,6]] - Already visited Node!
Node Chosen for Level 20 - [[5,1,2][8,4,0][3,7,6]]
Generated Nodes:
[[5,1,0][8,4,2][3,7,6]] - f(n) = 20 + 8 = 28
[[5,1,2][8,0,4][3,7,6]] - Already visited Node!
[[5,1,2][8,4,6][3,7,0]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,1,2][0,8,4][3,7,6]]
Generated Nodes:
[[0,1,2][5,8,4][3,7,6]] - f(n) = 20 + 8 = 28
[[5,1,2][8,0,4][3,7,6]] - Already visited Node!
[[5,1,2][3,8,4][0,7,6]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,1,2][8,7,0][3,6,4]]
Generated Nodes:
[[5,1,0][8,7,2][3,6,4]] - f(n) = 20 + 8 = 28
[[5,1,2][8,0,7][3,6,4]] - f(n) = 20 + 8 = 28
[[5,1,2][8,7,4][3,6,0]] - Already visited Node!
Node Chosen for Level 20 - [[5,0,1][7,3,2][8,6,4]]
Generated Nodes:
[[5,1,0][7,3,2][8,6,4]] - Already visited Node!
[[0,5,1][7,3,2][8,6,4]] - f(n) = 20 + 8 = 28
[[5,3,1][7,0,2][8,6,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,0,2][7,1,3][8,6,4]]
```

```
Generated Nodes:
[[5,2,0][7,1,3][8,6,4]] - f(n) = 20 + 7 = 27
[[0,5,2][7,1,3][8,6,4]] - Already visited Node!
[[5,1,2][7,0,3][8,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[5,1,2][0,7,3][8,6,4]]
Generated Nodes:
[[0,1,2][5,7,3][8,6,4]] - f(n) = 20 + 8 = 28
[[5,1,2][7,0,3][8,6,4]] - Already visited Node!
[[5,1,2][8,7,3][0,6,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[5,1,2][7,6,3][8,0,4]]
Generated Nodes:
[[5,1,2][7,0,3][8,6,4]] - Already visited Node!
[[5,1,2][7,6,3][8,4,0]] - f(n) = 20 + 8 = 28
[[5,1,2][7,6,3][0,8,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[7,4,5][1,3,0][8,6,2]]
Generated Nodes:
[[7,4,0][1,3,5][8,6,2]] - f(n) = 20 + 8 = 28
[[7,4,5][1,0,3][8,6,2]] - f(n) = 20 + 8 = 28
[[7,4,5][1,3,2][8,6,0]] - Already visited Node!
Node Chosen for Level 20 - [[7,3,5][1,2,0][8,6,4]]
Generated Nodes:
[[7,3,0][1,2,5][8,6,4]] - f(n) = 20 + 8 = 28
[[7,3,5][1,0,2][8,6,4]] - Already visited Node!
[[7,3,5][1,2,4][8,6,0]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,3,5][0,1,2][8,6,4]]
Generated Nodes:
[[0,3,5][7,1,2][8,6,4]] - f(n) = 20 + 8 = 28
[[7,3,5][1,0,2][8,6,4]] - Already visited Node!
[[7,3,5][8,1,2][0,6,4]] - f(n) = 20 + 8 = 28
Node Chosen for Level 20 - [[7,3,5][1,6,2][8,0,4]]
Generated Nodes:
```

[[7,3,5][1,0,2][8,6,4]] - Already visited Node! [[7,3,5][1,6,2][8,4,0]] - f(n) = 20 + 8 = 28

```
[[7,3,5][1,6,2][0,8,4]] - f(n) = 20 + 7 = 27
Node Chosen for Level 20 - [[5,0,2][7,1,3][8,6,4]]
Generated Nodes:
[[5,2,0][7,1,3][8,6,4]] - f(n) = 20 + 7 = 27
[[0,5,2][7,1,3][8,6,4]] - Already visited Node!
[[5,1,2][7,0,3][8,6,4]] - Already visited Node!
Node Chosen for Level 20 - [[7,5,2][8,1,3][6,0,4]]
Generated Nodes:
[[7,5,2][8,0,3][6,1,4]] - f(n) = 20 + 8 = 28
[[7,5,2][8,1,3][6,4,0]] - f(n) = 20 + 8 = 28
[[7,5,2][8,1,3][0,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,0,6][4,7,1]]
Generated Nodes:
[[5,0,2][3,8,6][4,7,1]] - f(n) = 21 + 7 = 28
[[5,8,2][3,6,0][4,7,1]] - f(n) = 21 + 8 = 29
[[5,8,2][0,3,6][4,7,1]] - f(n) = 21 + 7 = 28
[[5,8,2][3,7,6][4,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,7,6][4,1,0]]
Generated Nodes:
[[5,8,2][3,7,0][4,1,6]] - f(n) = 21 + 8 = 29
[[5,8,2][3,7,6][4,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,2][8,0,6][3,7,1]]
Generated Nodes:
[[5,0,2][8,4,6][3,7,1]] - f(n) = 21 + 7 = 28
[[5,4,2][8,6,0][3,7,1]] - f(n) =
                                  21 + 8 = 29
[[5,4,2][0,8,6][3,7,1]] - f(n) = 21 + 7 = 28
[[5,4,2][8,7,6][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,2][8,7,6][3,1,0]]
Generated Nodes:
[[5,4,2][8,7,0][3,1,6]] - f(n) = 21 + 8 = 29
[[5,4,2][8,7,6][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,4][5,3,8][1,7,6]]
```

```
Generated Nodes:
[[2,0,4][5,3,8][1,7,6]] - f(n) = 21 + 8 = 29
[[5,2,4][0,3,8][1,7,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][1,3,8][0,7,6]]
Generated Nodes:
[[5,2,4][0,3,8][1,7,6]] - Already visited Node!
[[5,2,4][1,3,8][7,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,0][3,7,4][1,6,8]]
Generated Nodes:
[[5,0,2][3,7,4][1,6,8]] - f(n) = 21 + 8 = 29
[[5,2,4][3,7,0][1,6,8]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][3,0,7][1,6,8]]
Generated Nodes:
[[5,0,4][3,2,7][1,6,8]] - f(n) = 21 + 8 = 29
[[5,2,4][3,7,0][1,6,8]] - Already visited Node!
[[5,2,4][0,3,7][1,6,8]] - f(n) = 21 + 7 = 28
[[5,2,4][3,6,7][1,0,8]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,2,4][5,7,1][3,6,8]]
Generated Nodes:
[[2,0,4][5,7,1][3,6,8]] - f(n) = 21 + 8 = 29
[[5,2,4][0,7,1][3,6,8]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][3,7,1][0,6,8]]
Generated Nodes:
[[5,2,4][0,7,1][3,6,8]] - Already visited Node!
[[5,2,4][3,7,1][6,0,8]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,4][7,6,1][0,3,8]]
Generated Nodes:
[[5,2,4][0,6,1][7,3,8]] - f(n) = 21 + 6 = 27
[[5,2,4][7,6,1][3,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[4,5,0][7,3,2][1,8,6]]
```

```
[[4,0,5][7,3,2][1,8,6]] - Already visited Node!
[[4,5,2][7,3,0][1,8,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[4,3,5][7,0,2][1,8,6]]
Generated Nodes:
[[4,0,5][7,3,2][1,8,6]] - Already visited Node!
[[4,3,5][7,2,0][1,8,6]] - f(n) = 21 + 7 = 28
[[4,3,5][0,7,2][1,8,6]] - f(n) = 21 + 7 = 28
[[4,3,5][7,8,2][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,0][3,5,2][6,4,1]]
Generated Nodes:
[[8,0,7][3,5,2][6,4,1]] - f(n) = 21 + 7 = 28
[[8,7,2][3,5,0][6,4,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,5,2][4,1,7][3,6,0]]
Generated Nodes:
[[8,5,2][4,1,0][3,6,7]] - f(n) = 21 + 7 = 28
[[8,5,2][4,1,7][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,5,2][4,1,7][0,3,6]]
Generated Nodes:
[[8,5,2][0,1,7][4,3,6]] - f(n) = 21 + 8 = 29
[[8,5,2][4,1,7][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,8,7][4,1,5][3,6,2]]
Generated Nodes:
[[8,0,7][4,1,5][3,6,2]] - Already visited Node!
[[4,8,7][0,1,5][3,6,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,1,7][4,0,5][3,6,2]]
Generated Nodes:
[[8,0,7][4,1,5][3,6,2]] - Already visited Node!
[[8,1,7][4,5,0][3,6,2]] - f(n) = 21 + 6 = 27
[[8,1,7][0,4,5][3,6,2]] - f(n) = 21 + 8 = 29
[[8,1,7][4,6,5][3,0,2]] - f(n) =
                                  21 + 7 = 28
Node Chosen for Level 21 - [[8,5,0][4,7,1][3,6,2]]
```

```
Generated Nodes:
[[8,0,5][4,7,1][3,6,2]] - Already visited Node!
[[8,5,1][4,7,0][3,6,2]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,8,5][4,7,1][3,6,2]]
Generated Nodes:
[[8,0,5][4,7,1][3,6,2]] - Already visited Node!
[[4,8,5][0,7,1][3,6,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,5][4,6,1][3,2,0]]
Generated Nodes:
[[8,7,5][4,6,0][3,2,1]] - Already visited Node!
[[8,7,5][4,6,1][3,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][4,6,1][0,3,2]]
Generated Nodes:
[[8,7,5][0,6,1][4,3,2]] - f(n) = 21 + 8 = 29
[[8,7,5][4,6,1][3,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][3,4,6][0,2,1]]
Generated Nodes:
[[8,7,5][0,4,6][3,2,1]] - Already visited Node!
[[8,7,5][3,4,6][2,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[4,5,0][7,8,6][3,2,1]]
Generated Nodes:
[[4,0,5][7,8,6][3,2,1]] - Already visited Node!
[[4,5,6][7,8,0][3,2,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,8,5][7,0,6][3,2,1]]
Generated Nodes:
[[4,0,5][7,8,6][3,2,1]] - Already visited Node!
[[4,8,5][7,6,0][3,2,1]] - f(n) = 21 + 8 = 29
[[4,8,5][0,7,6][3,2,1]] - f(n) = 21 + 7 = 28
[[4,8,5][7,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][3,8,6][2,1,0]]
Generated Nodes:
```

```
[[7,4,5][3,8,0][2,1,6]] - f(n) = 21 + 8 = 29
[[7,4,5][3,8,6][2,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[4,5,0][7,2,6][8,3,1]]
Generated Nodes:
[[4,0,5][7,2,6][8,3,1]] - Already visited Node!
[[4,5,6][7,2,0][8,3,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,0][2,4,6][8,3,1]]
Generated Nodes:
[[7,0,5][2,4,6][8,3,1]] - Already visited Node!
[[7,5,6][2,4,0][8,3,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,5][2,4,6][8,3,1]]
Generated Nodes:
[[7,0,5][2,4,6][8,3,1]] - Already visited Node!
[[2,7,5][0,4,6][8,3,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,4,5][2,3,6][8,1,0]]
Generated Nodes:
[[7,4,5][2,3,0][8,1,6]] - f(n) = 21 + 8 = 29
[[7,4,5][2,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,0,6][4,7,1]]
Generated Nodes:
[[5,0,2][3,8,6][4,7,1]] - f(n) = 21 + 7 = 28
[[5,8,2][3,6,0][4,7,1]] - f(n) = 21 + 8 = 29
[[5,8,2][0,3,6][4,7,1]] - f(n) = 21 + 7 = 28
[[5,8,2][3,7,6][4,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,7,6][4,1,0]]
Generated Nodes:
[[5,8,2][3,7,0][4,1,6]] - f(n) = 21 + 8 = 29
[[5,8,2][3,7,6][4,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][8,0,1][3,7,6]]
Generated Nodes:
```

```
[[5,0,4][8,2,1][3,7,6]] - f(n) = 21 + 8 = 29
[[5,2,4][8,1,0][3,7,6]] - f(n) =
                                   21 + 7 = 28
[[5,2,4][0,8,1][3,7,6]] - f(n) = 21 + 7 = 28
[[5,2,4][8,7,1][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][8,7,1][3,6,0]]
Generated Nodes:
[[5,2,4][8,7,0][3,6,1]] - f(n) = 21 + 7 = 28
[[5,2,4][8,7,1][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,0][7,3,4][8,6,1]]
Generated Nodes:
[[5,0,2][7,3,4][8,6,1]] - f(n) = 21 + 8 = 29
[[5,2,4][7,3,0][8,6,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,4][7,0,3][8,6,1]]
Generated Nodes:
[[5,0,4][7,2,3][8,6,1]] - f(n) = 21 + 8 = 29
[[5,2,4][7,3,0][8,6,1]] - Already visited Node!
[[5,2,4][0,7,3][8,6,1]] - f(n) = 21 + 7 = 28
[[5,2,4][7,6,3][8,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,5,2][8,0,6][4,1,3]]
Generated Nodes:
[[7,0,2][8,5,6][4,1,3]] - f(n) = 21 + 6 = 27
[[7,5,2][8,6,0][4,1,3]] - f(n) = 21 + 8 = 29
[[7,5,2][0,8,6][4,1,3]] - f(n) = 21 + 7 = 28
[[7,5,2][8,1,6][4,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][8,1,6][4,3,0]]
Generated Nodes:
[[7,5,2][8,1,0][4,3,6]] - f(n) = 21 + 8 = 29
[[7,5,2][8,1,6][4,0,3]] - Already visited Node!
Node Chosen for Level 22 - [[1,0,7][8,5,2][3,6,4]]
Generated Nodes:
[[1,7,0][8,5,2][3,6,4]] - Already visited Node!
[[0,1,7][8,5,2][3,6,4]] - f(n) = 22 + 7 = 29
[[1,5,7][8,0,2][3,6,4]] - f(n) = 22 + 7 = 29
```

```
Node Chosen for Level 21 - [[8,1,0][5,4,2][7,3,6]]
Generated Nodes:
[[8,0,1][5,4,2][7,3,6]] - f(n) = 21 + 7 = 28
[[8,1,2][5,4,0][7,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,1,2][5,3,4][7,6,0]]
Generated Nodes:
[[8,1,2][5,3,0][7,6,4]] - f(n) = 21 + 7 = 28
[[8,1,2][5,3,4][7,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,5,8][1,4,2][7,3,6]]
Generated Nodes:
[[5,0,8][1,4,2][7,3,6]] - Already visited Node!
[[1,5,8][0,4,2][7,3,6]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,4,8][1,0,2][7,3,6]]
Generated Nodes:
[[5,0,8][1,4,2][7,3,6]] - Already visited Node!
[[5,4,8][1,2,0][7,3,6]] - f(n) = 21 + 7 = 28
[[5,4,8][0,1,2][7,3,6]] - Already visited Node!
[[5,4,8][1,3,2][7,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,8,0][1,3,2][7,6,4]]
Generated Nodes:
[[5,0,8][1,3,2][7,6,4]] - f(n) = 21 + 7 = 28
[[5,8,2][1,3,0][7,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][1,0,3][7,6,4]]
Generated Nodes:
[[5,0,2][1,8,3][7,6,4]] - f(n) = 21 + 7 = 28
[[5,8,2][1,3,0][7,6,4]] - Already visited Node!
[[5,8,2][0,1,3][7,6,4]] - f(n) = 21 + 7 = 28
[[5,8,2][1,6,3][7,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[3,7,2][1,5,8][6,4,0]]
Generated Nodes:
[[3,7,2][1,5,0][6,4,8]] - f(n) = 21 + 7 = 28
[[3,7,2][1,5,8][6,0,4]] - Already visited Node!
```

```
Node Chosen for Level 22 - [[5,3,2][0,7,6][4,8,1]]
Generated Nodes:
[[0,3,2][5,7,6][4,8,1]] - f(n) = 22 + 6 = 28
[[5,3,2][7,0,6][4,8,1]] - Already visited Node!
[[5,3,2][4,7,6][0,8,1]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[5,2,4][8,7,6][1,0,3]]
Generated Nodes:
[[5,2,4][8,0,6][1,7,3]] - f(n) = 22 + 6 = 28
[[5,2,4][8,7,6][1,3,0]] - f(n) = 22 + 6 = 28
[[5,2,4][8,7,6][0,1,3]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,2][0,7,6][1,8,3]]
Generated Nodes:
[[0,4,2][5,7,6][1,8,3]] - f(n) = 22 + 6 = 28
[[5,4,2][7,0,6][1,8,3]] - Already visited Node!
[[5,4,2][1,7,6][0,8,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,8][0,5,4][3,1,6]]
Generated Nodes:
[[0,2,8][7,5,4][3,1,6]] - f(n) = 22 + 6 = 28
[[7,2,8][5,0,4][3,1,6]] - f(n) = 22 + 7 = 29
[[7,2,8][3,5,4][0,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,2][1,5,6][4,0,8]]
Generated Nodes:
[[3,7,2][1,0,6][4,5,8]] - f(n) = 22 + 7 = 29
[[3,7,2][1,5,6][4,8,0]] - f(n) = 22 + 5 = 27
[[3,7,2][1,5,6][0,4,8]] - Already visited Node!
Node Chosen for Level 21 - [[4,5,0][7,3,2][1,8,6]]
Generated Nodes:
[[4,0,5][7,3,2][1,8,6]] - Already visited Node!
[[4,5,2][7,3,0][1,8,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[4,3,5][7,0,2][1,8,6]]
Generated Nodes:
```

```
[[4,0,5][7,3,2][1,8,6]] - Already visited Node!
[[4,3,5][7,2,0][1,8,6]] - f(n) = 21 + 7 = 28
[[4,3,5][0,7,2][1,8,6]] - f(n) = 21 + 7 = 28
[[4,3,5][7,8,2][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,2,4][5,1,7][3,6,0]]
Generated Nodes:
[[8,2,4][5,1,0][3,6,7]] - f(n) = 21 + 7 = 28
[[8,2,4][5,1,7][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,4][5,1,7][0,3,6]]
Generated Nodes:
[[8,2,4][0,1,7][5,3,6]] - f(n) = 21 + 7 = 28
[[8,2,4][5,1,7][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,2,1][5,7,8][3,6,4]]
Generated Nodes:
[[2,0,1][5,7,8][3,6,4]] - f(n) = 21 + 8 = 29
[[5,2,1][0,7,8][3,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,1][3,7,8][0,6,4]]
Generated Nodes:
[[5,2,1][0,7,8][3,6,4]] - Already visited Node!
[[5,2,1][3,7,8][6,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,1][7,6,8][3,4,0]]
Generated Nodes:
[[5,2,1][7,6,0][3,4,8]] - f(n) = 21 + 7 = 28
[[5,2,1][7,6,8][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,1][7,6,8][0,3,4]]
Generated Nodes:
[[5,2,1][0,6,8][7,3,4]] - f(n) = 21 + 6 = 27
[[5,2,1][7,6,8][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,1][7,8,4][0,3,6]]
Generated Nodes:
[[5,2,1][0,8,4][7,3,6]] - f(n) = 21 + 6 = 27
```

```
[[5,2,1][7,8,4][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,5][3,1,2][6,8,4]]
Generated Nodes:
[[7,0,5][3,1,2][6,8,4]] - Already visited Node!
[[3,7,5][0,1,2][6,8,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,3,2][7,0,1][6,8,4]]
Generated Nodes:
[[5,0,2][7,3,1][6,8,4]] - Already visited Node!
[[5,3,2][7,1,0][6,8,4]] - f(n) = 21 + 7 = 28
[[5,3,2][0,7,1][6,8,4]] - f(n) = 21 + 7 = 28
[[5,3,2][7,8,1][6,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,1,2][5,7,6][8,4,3]]
Generated Nodes:
[[1,0,2][5,7,6][8,4,3]] - Already visited Node!
[[5,1,2][0,7,6][8,4,3]] - Already visited Node!
Node Chosen for Level 21 - [[5,1,2][8,7,6][0,4,3]]
Generated Nodes:
[[5,1,2][0,7,6][8,4,3]] - Already visited Node!
[[5,1,2][8,7,6][4,0,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[5,2,4][1,3,0][7,6,8]]
Generated Nodes:
[[5,2,0][1,3,4][7,6,8]] - f(n) = 22 + 6 = 28
[[5,2,4][1,0,3][7,6,8]] - f(n) = 22 + 6 = 28
[[5,2,4][1,3,8][7,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[8,4,2][5,3,6][7,0,1]]
Generated Nodes:
[[8,4,2][5,0,6][7,3,1]] - Already visited Node!
[[8,4,2][5,3,6][7,1,0]] - f(n) = 22 + 6 = 28
[[8,4,2][5,3,6][0,7,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,5,2][0,1,4][7,8,6]]
Generated Nodes:
```

```
[[0,5,2][3,1,4][7,8,6]] - Already visited Node!
[[3,5,2][1,0,4][7,8,6]] - f(n) = 22 + 6 = 28
[[3,5,2][7,1,4][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,1][3,4,2][7,8,6]]
Generated Nodes:
[[5,1,0][3,4,2][7,8,6]] - Already visited Node!
[[0,5,1][3,4,2][7,8,6]] - f(n) = 22 + 6 = 28
[[5,4,1][3,0,2][7,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,2,4][5,3,7][8,0,6]]
Generated Nodes:
[[1,2,4][5,0,7][8,3,6]] - Already visited Node!
[[1,2,4][5,3,7][8,6,0]] - f(n) = 22 + 6 = 28
[[1,2,4][5,3,7][0,8,6]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[1,0,2][5,7,6][8,4,3]]
Generated Nodes:
[[1,2,0][5,7,6][8,4,3]] - f(n) = 22 + 5 = 27
[[0,1,2][5,7,6][8,4,3]] - Already visited Node!
[[1,7,2][5,0,6][8,4,3]] - Already visited Node!
Node Chosen for Level 22 - [[1,0,2][3,7,4][5,8,6]]
Generated Nodes:
[[1,2,0][3,7,4][5,8,6]] - f(n) = 22 + 5 = 27
[[0,1,2][3,7,4][5,8,6]] - f(n) = 22 + 7 = 29
[[1,7,2][3,0,4][5,8,6]] - Already visited Node!
Node Chosen for Level 22 - [[1,7,2][3,4,0][5,8,6]]
Generated Nodes:
[[1,7,0][3,4,2][5,8,6]] - f(n) = 22 + 6 = 28
[[1,7,2][3,0,4][5,8,6]] - Already visited Node!
[[1,7,2][3,4,6][5,8,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 21 - [[8,7,2][3,5,4][1,6,0]]
Generated Nodes:
[[8,7,2][3,5,0][1,6,4]] - f(n) = 21 + 7 = 28
[[8,7,2][3,5,4][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[1,5,2][7,0,8][3,6,4]]
```

```
Generated Nodes:
[[1,0,2][7,5,8][3,6,4]] - f(n) = 21 + 6 = 27
[[1,5,2][7,8,0][3,6,4]] - Already visited Node!
[[1,5,2][0,7,8][3,6,4]] - f(n) = 21 + 7 = 28
[[1,5,2][7,6,8][3,0,4]] - f(n) =
                                  21 + 7 = 28
Node Chosen for Level 21 - [[1,5,2][7,8,4][3,6,0]]
Generated Nodes:
[[1,5,2][7,8,0][3,6,4]] - Already visited Node!
[[1,5,2][7,8,4][3,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,8,0][7,2,5][3,6,4]]
Generated Nodes:
[[1,0,8][7,2,5][3,6,4]] - f(n) = 21 + 7 = 28
[[1,8,5][7,2,0][3,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[1,8,5][7,2,4][3,6,0]]
Generated Nodes:
[[1,8,5][7,2,0][3,6,4]] - Already visited Node!
[[1,8,5][7,2,4][3,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,8,5][3,7,2][0,6,4]]
Generated Nodes:
[[1,8,5][0,7,2][3,6,4]] - Already visited Node!
[[1,8,5][3,7,2][6,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,8,5][7,6,2][3,4,0]]
Generated Nodes:
[[1,8,5][7,6,0][3,4,2]] - f(n) = 21 + 7 = 28
[[1,8,5][7,6,2][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[1,8,5][7,6,2][0,3,4]]
Generated Nodes:
[[1,8,5][0,6,2][7,3,4]] - f(n) = 21 + 6 = 27
[[1,8,5][7,6,2][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[6,7,2][8,5,1][0,3,4]]
```

```
Generated Nodes:
[[6,7,2][0,5,1][8,3,4]] - Already visited Node!
[[6,7,2][8,5,1][3,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,7,5][8,0,2][3,4,6]]
Generated Nodes:
[[1,0,5][8,7,2][3,4,6]] - f(n) = 21 + 7 = 28
[[1,7,5][8,2,0][3,4,6]] - f(n) = 21 + 7 = 28
[[1,7,5][0,8,2][3,4,6]] - f(n) = 21 + 7 = 28
[[1,7,5][8,4,2][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[1,7,5][8,4,2][3,6,0]]
Generated Nodes:
[[1,7,5][8,4,0][3,6,2]] - f(n) = 21 + 7 = 28
[[1,7,5][8,4,2][3,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[3,5,2][4,7,0][1,8,6]]
Generated Nodes:
[[3,5,0][4,7,2][1,8,6]] - Already visited Node!
[[3,5,2][4,0,7][1,8,6]] - f(n) = 22 + 6 = 28
[[3,5,2][4,7,6][1,8,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[3,0,7][4,2,5][1,8,6]]
Generated Nodes:
[[3,7,0][4,2,5][1,8,6]] - Already visited Node!
[[0,3,7][4,2,5][1,8,6]] - f(n) = 22 + 6 = 28
[[3,2,7][4,0,5][1,8,6]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[8,2,7][4,1,0][3,6,5]]
Generated Nodes:
[[8,2,0][4,1,7][3,6,5]] - f(n) = 22 + 6 = 28
[[8,2,7][4,0,1][3,6,5]] - f(n) = 22 + 6 = 28
[[8,2,7][4,1,5][3,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[8,2,4][5,3,1][7,0,6]]
Generated Nodes:
[[8,2,4][5,0,1][7,3,6]] - Already visited Node!
[[8,2,4][5,3,1][7,6,0]] - f(n) = 22 + 6 = 28
[[8,2,4][5,3,1][0,7,6]] - f(n) = 22 + 7 = 29
```

```
Node Chosen for Level 22 - [[5,0,2][1,8,6][7,4,3]]
Generated Nodes:
[[5,2,0][1,8,6][7,4,3]] - f(n) = 22 + 5 = 27
[[0,5,2][1,8,6][7,4,3]] - f(n) = 22 + 6 = 28
[[5,8,2][1,0,6][7,4,3]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][0,1,6][7,4,3]]
Generated Nodes:
[[0,8,2][5,1,6][7,4,3]] - f(n) = 22 + 6 = 28
[[5,8,2][1,0,6][7,4,3]] - Already visited Node!
[[5,8,2][7,1,6][0,4,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,2,4][0,7,6][5,3,1]]
Generated Nodes:
[[0,2,4][8,7,6][5,3,1]] - f(n) = 22 + 6 = 28
[[8,2,4][7,0,6][5,3,1]] - f(n) = 22 + 6 = 28
[[8,2,4][5,7,6][0,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,2][8,5,6][4,3,0]]
Generated Nodes:
[[1,7,2][8,5,0][4,3,6]] - f(n) = 23 + 6 = 29
[[1,7,2][8,5,6][4,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[1,3,0][5,4,2][7,8,6]]
Generated Nodes:
[[1,0,3][5,4,2][7,8,6]] - f(n) = 23 + 4 = 27
[[1,3,2][5,4,0][7,8,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,1][6,5,4][8,0,3]]
Generated Nodes:
[[7,2,1][6,0,4][8,5,3]] - f(n) = 22 + 7 = 29
[[7,2,1][6,5,4][8,3,0]] - Already visited Node!
[[7,2,1][6,5,4][0,8,3]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[1,5,2][4,7,0][8,3,6]]
Generated Nodes:
[[1,5,0][4,7,2][8,3,6]] - Already visited Node!
```

```
[[1,5,2][4,0,7][8,3,6]] - f(n) = 22 + 6 = 28
[[1,5,2][4,7,6][8,3,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[1,0,7][4,2,5][8,3,6]]
Generated Nodes:
[[1,7,0][4,2,5][8,3,6]] - Already visited Node!
[[0,1,7][4,2,5][8,3,6]] - f(n) = 22 + 7 = 29
[[1,2,7][4,0,5][8,3,6]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[1,7,5][4,3,0][8,6,2]]
Generated Nodes:
[[1,7,0][4,3,5][8,6,2]] - f(n) = 22 + 6 = 28
[[1,7,5][4,0,3][8,6,2]] - f(n) = 22 + 6 = 28
[[1,7,5][4,3,2][8,6,0]] - Already visited Node!
Node Chosen for Level 23 - [[4,3,2][5,0,6][7,8,1]]
Generated Nodes:
[[4,0,2][5,3,6][7,8,1]] - Already visited Node!
[[4,3,2][5,6,0][7,8,1]] - f(n) = 23 + 6 = 29
[[4,3,2][0,5,6][7,8,1]] - f(n) = 23 + 4 = 27
[[4,3,2][5,8,6][7,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,5,2][3,4,6][7,8,1]]
Generated Nodes:
[[5,0,2][3,4,6][7,8,1]] - Already visited Node!
[[3,5,2][0,4,6][7,8,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 21 - [[8,2,1][5,0,7][3,6,4]]
Generated Nodes:
[[8,0,1][5,2,7][3,6,4]] - f(n) = 21 + 8 = 29
[[8,2,1][5,7,0][3,6,4]] - Already visited Node!
[[8,2,1][0,5,7][3,6,4]] - f(n) = 21 + 6 = 27
[[8,2,1][5,6,7][3,0,4]] - f(n) =
                                  21 + 7 = 28
Node Chosen for Level 21 - [[8,2,1][5,7,4][3,6,0]]
Generated Nodes:
[[8,2,1][5,7,0][3,6,4]] - Already visited Node!
[[8,2,1][5,7,4][3,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,4,8][7,0,6][3,2,1]]
```

```
Generated Nodes:
```

[[5,0,8][7,4,6][3,2,1]] - f(n) = 21 + 7 = 28[[5,4,8][7,6,0][3,2,1]] - f(n) = 21 + 8 = 29[[5,4,8][0,7,6][3,2,1]] - f(n) = 21 + 7 = 28[[5,4,8][7,2,6][3,0,1]] - Already visited Node!

Node Chosen for Level 21 - [[5,4,8][7,2,6][0,3,1]]

Generated Nodes:

```
[[5,4,8][0,2,6][7,3,1]] - f(n) = 21 + 6 = 27
[[5,4,8][7,2,6][3,0,1]] - Already visited Node!
```

Node Chosen for Level 21 - [[8,7,5][3,0,6][1,2,4]]

Generated Nodes:

```
[[8,0,5][3,7,6][1,2,4]] - f(n) = 21 + 7 = 28
[[8,7,5][3,6,0][1,2,4]] - f(n) = 21 + 8 = 29
[[8,7,5][0,3,6][1,2,4]] - f(n) = 21 + 7 = 28
[[8,7,5][3,2,6][1,0,4]] - Already visited Node!
```

Node Chosen for Level 21 - [[8,7,5][3,2,6][0,1,4]]

Generated Nodes:

```
[[8,7,5][0,2,6][3,1,4]] - f(n) = 21 + 7 = 28
[[8,7,5][3,2,6][1,0,4]] - Already visited Node!
```

Node Chosen for Level 21 - [[4,5,2][7,8,6][0,3,1]]

Generated Nodes:

```
[[4,5,2][0,8,6][7,3,1]] - Already visited Node!
[[4,5,2][7,8,6][3,0,1]] - Already visited Node!
```

Node Chosen for Level 21 - [[4,8,5][7,0,6][3,2,1]]

Generated Nodes:

```
[[4,0,5][7,8,6][3,2,1]] - Already visited Node!
[[4,8,5][7,6,0][3,2,1]] - f(n) = 21 + 8 = 29
[[4,8,5][0,7,6][3,2,1]] - f(n) = 21 + 7 = 28
[[4,8,5][7,2,6][3,0,1]] - Already visited Node!
```

Node Chosen for Level 21 - [[4,8,5][7,2,6][0,3,1]]

```
[[4,8,5][0,2,6][7,3,1]] - f(n) = 21 + 6 = 27
```

```
[[4,8,5][7,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][1,0,6][8,2,3]]
Generated Nodes:
[[7,0,5][1,4,6][8,2,3]] - f(n) = 21 + 7 = 28
[[7,4,5][1,6,0][8,2,3]] - f(n) =
                                   21 + 8 = 29
[[7,4,5][0,1,6][8,2,3]] - f(n) = 21 + 7 = 28
[[7,4,5][1,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,0][4,2,8][3,1,6]]
Generated Nodes:
[[7,0,5][4,2,8][3,1,6]] - f(n) = 21 + 7 = 28
[[7,5,8][4,2,0][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,8][4,1,2][3,6,0]]
Generated Nodes:
[[7,5,8][4,1,0][3,6,2]] - f(n) = 21 + 7 = 28
[[7,5,8][4,1,2][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,8][4,1,2][0,3,6]]
Generated Nodes:
[[7,5,8][0,1,2][4,3,6]] - f(n) = 21 + 8 = 29
[[7,5,8][4,1,2][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,8][7,0,6][3,2,1]]
Generated Nodes:
[[5,0,8][7,4,6][3,2,1]] - f(n) = 21 + 7 = 28
[[5,4,8][7,6,0][3,2,1]] - f(n) = 21 + 8 = 29
[[5,4,8][0,7,6][3,2,1]] - f(n) = 21 + 7 = 28
[[5,4,8][7,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,8][7,2,6][0,3,1]]
Generated Nodes:
[[5,4,8][0,2,6][7,3,1]] - f(n) = 21 + 6 = 27
[[5,4,8][7,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,0,6][1,4,7]]
Generated Nodes:
```

```
[[5,0,2][3,8,6][1,4,7]] - f(n) =
                                21 + 7 = 28
[[5,8,2][3,6,0][1,4,7]] - f(n) =
                                  21 + 8 = 29
[[5,8,2][0,3,6][1,4,7]] - f(n) =
                                  21 + 7 = 28
[[5,8,2][3,4,6][1,0,7]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,4,6][0,1,7]]
Generated Nodes:
[[5,8,2][0,4,6][3,1,7]] - f(n) = 21 + 7 = 28
[[5,8,2][3,4,6][1,0,7]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,8][7,0,3][1,6,4]]
Generated Nodes:
[[5,0,8][7,2,3][1,6,4]] - f(n) = 21 + 8 = 29
[[5,2,8][7,3,0][1,6,4]] - Already visited Node!
[[5,2,8][0,7,3][1,6,4]] - f(n) = 21 + 7 = 28
[[5,2,8][7,6,3][1,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,8][7,3,4][1,6,0]]
Generated Nodes:
[[5,2,8][7,3,0][1,6,4]] - Already visited Node!
[[5,2,8][7,3,4][1,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,7,5][3,1,2][6,8,4]]
Generated Nodes:
[[7,0,5][3,1,2][6,8,4]] - Already visited Node!
[[3,7,5][0,1,2][6,8,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,1,0][3,2,5][6,8,4]]
Generated Nodes:
[[7,0,1][3,2,5][6,8,4]] - f(n) = 21 + 7 = 28
[[7,1,5][3,2,0][6,8,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,5][3,2,4][6,8,0]]
Generated Nodes:
[[7,1,5][3,2,0][6,8,4]] - Already visited Node!
[[7,1,5][3,2,4][6,0,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,1,5][7,3,2][6,8,4]]
Generated Nodes:
```

```
[[1,0,5][7,3,2][6,8,4]] - f(n) = 21 + 6 = 27
[[7,1,5][0,3,2][6,8,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,5][6,3,2][0,8,4]]
Generated Nodes:
[[7,1,5][0,3,2][6,8,4]] - Already visited Node!
[[7,1,5][6,3,2][8,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,0][8,1,6][3,4,2]]
Generated Nodes:
[[7,0,5][8,1,6][3,4,2]] - Already visited Node!
[[7,5,6][8,1,0][3,4,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,5][8,1,6][3,4,2]]
Generated Nodes:
[[7,0,5][8,1,6][3,4,2]] - Already visited Node!
[[8,7,5][0,1,6][3,4,2]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,1,5][7,8,6][3,4,2]]
Generated Nodes:
[[1,0,5][7,8,6][3,4,2]] - f(n) = 21 + 6 = 27
[[7,1,5][0,8,6][3,4,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,5][3,8,6][0,4,2]]
Generated Nodes:
[[7,1,5][0,8,6][3,4,2]] - Already visited Node!
[[7,1,5][3,8,6][4,0,2]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,1,5][8,4,6][3,2,0]]
Generated Nodes:
[[7,1,5][8,4,0][3,2,6]] - Already visited Node!
[[7,1,5][8,4,6][3,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,5][8,4,6][0,3,2]]
Generated Nodes:
[[7,1,5][0,4,6][8,3,2]] - f(n) = 21 + 7 = 28
[[7,1,5][8,4,6][3,0,2]] - Already visited Node!
```

```
Node Chosen for Level 21 - [[5,2,1][7,6,4][8,3,0]]
Generated Nodes:
[[5,2,1][7,6,0][8,3,4]] - Already visited Node!
[[5,2,1][7,6,4][8,0,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,4,5][1,0,6][8,2,3]]
Generated Nodes:
[[7,0,5][1,4,6][8,2,3]] - f(n) =
                                 21 + 7 = 28
[[7,4,5][1,6,0][8,2,3]] - f(n) =
                                  21 + 8 = 29
[[7,4,5][0,1,6][8,2,3]] - f(n) =
                                  21 + 7 = 28
[[7,4,5][1,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[0,5,2][7,6,3][1,8,4]]
Generated Nodes:
[[5,0,2][7,6,3][1,8,4]] - f(n) = 21 + 7 = 28
[[7,5,2][0,6,3][1,8,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][6,0,3][1,8,4]]
Generated Nodes:
[[7,0,2][6,5,3][1,8,4]] - f(n) = 21 + 6 = 27
[[7,5,2][6,3,0][1,8,4]] - f(n) = 21 + 7 = 28
[[7,5,2][0,6,3][1,8,4]] - Already visited Node!
[[7,5,2][6,8,3][1,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[7,5,3][0,4,2][1,8,6]]
Generated Nodes:
[[0,5,3][7,4,2][1,8,6]] - Already visited Node!
[[7,5,3][4,0,2][1,8,6]] - f(n) = 22 + 5 = 27
[[7,5,3][1,4,2][0,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,4,3][7,2,0][1,8,6]]
Generated Nodes:
[[5,4,0][7,2,3][1,8,6]] - Already visited Node!
[[5,4,3][7,0,2][1,8,6]] - Already visited Node!
[[5,4,3][7,2,6][1,8,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[5,4,3][0,7,2][1,8,6]]
Generated Nodes:
```

```
[[0,4,3][5,7,2][1,8,6]] - f(n) = 22 + 6 = 28
[[5,4,3][7,0,2][1,8,6]] - Already visited Node!
[[5,4,3][1,7,2][0,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,5,2][8,4,0][7,3,6]]
Generated Nodes:
[[1,5,0][8,4,2][7,3,6]] - f(n) = 22 + 6 = 28
[[1,5,2][8,0,4][7,3,6]] - Already visited Node!
[[1,5,2][8,4,6][7,3,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[1,5,2][8,3,4][7,0,6]]
Generated Nodes:
[[1,5,2][8,0,4][7,3,6]] - Already visited Node!
[[1,5,2][8,3,4][7,6,0]] - f(n) = 22 + 6 = 28
[[1,5,2][8,3,4][0,7,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,2,4][3,5,7][1,0,6]]
Generated Nodes:
[[8,2,4][3,0,7][1,5,6]] - f(n) = 22 + 7 = 29
[[8,2,4][3,5,7][1,6,0]] - f(n) = 22 + 6 = 28
[[8,2,4][3,5,7][0,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,2,4][5,0,6][8,7,3]]
Generated Nodes:
[[1,0,4][5,2,6][8,7,3]] - f(n) = 23 + 6 = 29
[[1,2,4][5,6,0][8,7,3]] - f(n) = 23 + 6 = 29
[[1,2,4][0,5,6][8,7,3]] - f(n) = 23 + 4 = 27
[[1,2,4][5,7,6][8,0,3]] - Already visited Node!
Node Chosen for Level 22 - [[1,7,2][8,5,3][6,0,4]]
Generated Nodes:
[[1,7,2][8,0,3][6,5,4]] - f(n) = 22 + 7 = 29
[[1,7,2][8,5,3][6,4,0]] - f(n) = 22 + 6 = 28
[[1,7,2][8,5,3][0,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,4][5,0,6][7,1,3]]
Generated Nodes:
[[8,0,4][5,2,6][7,1,3]] - f(n) = 23 + 6 = 29
[[8,2,4][5,6,0][7,1,3]] - f(n) = 23 + 6 = 29
```

```
[[8,2,4][0,5,6][7,1,3]] - f(n) = 23 + 4 = 27
[[8,2,4][5,1,6][7,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,5][4,0,6][8,2,3]]
Generated Nodes:
[[1,0,5][4,7,6][8,2,3]] - f(n) =
                                  23 + 5 = 28
[[1,7,5][4,6,0][8,2,3]] - f(n) = 23 + 6 = 29
[[1,7,5][0,4,6][8,2,3]] - f(n) = 23 + 6 = 29
[[1,7,5][4,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,1][4,5,3][8,6,0]]
Generated Nodes:
[[7,2,1][4,5,0][8,6,3]] - Already visited Node!
[[7,2,1][4,5,3][8,0,6]] - f(n) = 23 + 5 = 28
Node Chosen for Level 22 - [[7,8,2][4,5,0][3,1,6]]
Generated Nodes:
[[7,8,0][4,5,2][3,1,6]] - Already visited Node!
[[7,8,2][4,0,5][3,1,6]] - f(n) = 22 + 7 = 29
[[7,8,2][4,5,6][3,1,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 21 - [[1,7,4][2,0,5][8,3,6]]
Generated Nodes:
[[1,0,4][2,7,5][8,3,6]] - f(n) = 21 + 7 = 28
[[1,7,4][2,5,0][8,3,6]] - f(n) =
                                  21 + 6 = 27
[[1,7,4][0,2,5][8,3,6]] - Already visited Node!
[[1,7,4][2,3,5][8,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,7,4][8,2,5][0,3,6]]
Generated Nodes:
[[1,7,4][0,2,5][8,3,6]] - Already visited Node!
[[1,7,4][8,2,5][3,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[4,7,2][0,3,6][5,8,1]]
Generated Nodes:
[[0,7,2][4,3,6][5,8,1]] - f(n) = 22 + 5 = 27
[[4,7,2][3,0,6][5,8,1]] - f(n) = 22 + 6 = 28
[[4,7,2][5,3,6][0,8,1]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,2][3,5,8][4,1,6]]
```

```
Generated Nodes:
[[7,0,2][3,5,8][4,1,6]] - Already visited Node!
[[3,7,2][0,5,8][4,1,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,7,4][2,5,8][3,1,6]]
Generated Nodes:
[[7,0,4][2,5,8][3,1,6]] - Already visited Node!
[[2,7,4][0,5,8][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[2,7,4][3,5,8][0,1,6]]
Generated Nodes:
[[2,7,4][0,5,8][3,1,6]] - Already visited Node!
[[2,7,4][3,5,8][1,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,3,2][5,8,4][7,1,6]]
Generated Nodes:
[[3,0,2][5,8,4][7,1,6]] - f(n) = 21 + 7 = 28
[[5,3,2][0,8,4][7,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,2][8,0,4][7,1,6]]
Generated Nodes:
[[5,0,2][8,3,4][7,1,6]] - f(n) = 21 + 7 = 28
[[5,3,2][8,4,0][7,1,6]] - f(n) =
                                  21 + 7 = 28
[[5,3,2][0,8,4][7,1,6]] - Already visited Node!
[[5,3,2][8,1,4][7,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[8,7,2][4,3,6][5,0,1]]
Generated Nodes:
[[8,7,2][4,0,6][5,3,1]] - Already visited Node!
[[8,7,2][4,3,6][5,1,0]] - f(n) = 22 + 6 = 28
[[8,7,2][4,3,6][0,5,1]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,1][8,4,6][3,0,5]]
Generated Nodes:
[[7,2,1][8,0,6][3,4,5]] - Already visited Node!
[[7,2,1][8,4,6][3,5,0]] - Already visited Node!
[[7,2,1][8,4,6][0,3,5]] - f(n) = 22 + 6 = 28
```

```
Node Chosen for Level 22 - [[1,2,4][8,7,0][3,5,6]]
Generated Nodes:
[[1,2,0][8,7,4][3,5,6]] - Already visited Node!
[[1,2,4][8,0,7][3,5,6]] - f(n) = 22 + 6 = 28
[[1,2,4][8,7,6][3,5,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[1,7,2][8,4,6][3,0,5]]
Generated Nodes:
[[1,7,2][8,0,6][3,4,5]] - f(n) = 22 + 6 = 28
[[1,7,2][8,4,6][3,5,0]] - Already visited Node!
[[1,7,2][8,4,6][0,3,5]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[0,7,4][2,5,6][3,8,1]]
Generated Nodes:
[[7,0,4][2,5,6][3,8,1]] - Already visited Node!
[[2,7,4][0,5,6][3,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[2,7,4][3,5,6][0,8,1]]
Generated Nodes:
[[2,7,4][0,5,6][3,8,1]] - Already visited Node!
[[2,7,4][3,5,6][8,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,8,4][2,5,6][7,3,1]]
Generated Nodes:
[[8,0,4][2,5,6][7,3,1]] - f(n) = 23 + 5 = 28
[[2,8,4][0,5,6][7,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,4][5,3,6][7,1,8]]
Generated Nodes:
[[2,0,4][5,3,6][7,1,8]] - f(n) = 23 + 6 = 29
[[5,2,4][0,3,6][7,1,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,0,6][7,1,8]]
Generated Nodes:
[[5,0,4][3,2,6][7,1,8]] - f(n) = 23 + 6 = 29
[[5,2,4][3,6,0][7,1,8]] - f(n) = 23 + 6 = 29
[[5,2,4][0,3,6][7,1,8]] - Already visited Node!
```

[[5,2,4][3,1,6][7,0,8]] - f(n) = 23 + 5 = 28

```
Node Chosen for Level 22 - [[5,2,6][7,1,0][3,8,4]]
Generated Nodes:
[[5,2,0][7,1,6][3,8,4]] - f(n) = 22 + 5 = 27
[[5,2,6][7,0,1][3,8,4]] - Already visited Node!
[[5,2,6][7,1,4][3,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,6][0,7,1][3,8,4]]
Generated Nodes:
[[0,2,6][5,7,1][3,8,4]] - f(n) = 22 + 6 = 28
[[5,2,6][7,0,1][3,8,4]] - Already visited Node!
[[5,2,6][3,7,1][0,8,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 21 - [[7,4,0][2,5,8][3,1,6]]
Generated Nodes:
[[7,0,4][2,5,8][3,1,6]] - Already visited Node!
[[7,4,8][2,5,0][3,1,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,7,4][2,5,8][3,1,6]]
Generated Nodes:
[[7,0,4][2,5,8][3,1,6]] - Already visited Node!
[[2,7,4][0,5,8][3,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,2][4,7,6][5,3,1]]
Generated Nodes:
[[8,2,0][4,7,6][5,3,1]] - f(n) = 22 + 5 = 27
[[0,8,2][4,7,6][5,3,1]] - f(n) = 22 + 6 = 28
[[8,7,2][4,0,6][5,3,1]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,2][4,3,6][5,0,1]]
Generated Nodes:
[[8,7,2][4,0,6][5,3,1]] - Already visited Node!
[[8,7,2][4,3,6][5,1,0]] - f(n) = 22 + 6 = 28
[[8,7,2][4,3,6][0,5,1]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,1][0,8,6][3,4,5]]
Generated Nodes:
[[0,2,1][7,8,6][3,4,5]] - f(n) = 22 + 6 = 28
```

```
[[7,2,1][8,0,6][3,4,5]] - Already visited Node!
[[7,2,1][3,8,6][0,4,5]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,1][8,4,6][3,0,5]]
Generated Nodes:
[[7,2,1][8,0,6][3,4,5]] - Already visited Node!
[[7,2,1][8,4,6][3,5,0]] - Already visited Node!
[[7,2,1][8,4,6][0,3,5]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[7,4,0][2,5,6][3,8,1]]
Generated Nodes:
[[7,0,4][2,5,6][3,8,1]] - Already visited Node!
[[7,4,6][2,5,0][3,8,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,7,4][2,5,6][3,8,1]]
Generated Nodes:
[[7,0,4][2,5,6][3,8,1]] - Already visited Node!
[[2,7,4][0,5,6][3,8,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,0][2,5,4][3,1,6]]
Generated Nodes:
[[8,0,7][2,5,4][3,1,6]] - f(n) = 21 + 7 = 28
[[8,7,4][2,5,0][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,4,2][7,5,8][3,1,6]]
Generated Nodes:
[[4,0,2][7,5,8][3,1,6]] - Already visited Node!
[[7,4,2][0,5,8][3,1,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[4,8,5][1,0,2][7,3,6]]
Generated Nodes:
[[4,0,5][1,8,2][7,3,6]] - f(n) = 21 + 7 = 28
[[4,8,5][1,2,0][7,3,6]] - f(n) = 21 + 7 = 28
[[4,8,5][0,1,2][7,3,6]] - Already visited Node!
[[4,8,5][1,3,2][7,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,1,0][8,5,4][3,6,2]]
Generated Nodes:
```

```
[[7,0,1][8,5,4][3,6,2]] - f(n) = 21 + 7 = 28
[[7,1,4][8,5,0][3,6,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,4][8,5,2][3,6,0]]
Generated Nodes:
[[7,1,4][8,5,0][3,6,2]] - Already visited Node!
[[7,1,4][8,5,2][3,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,4,8][5,1,2][7,3,6]]
Generated Nodes:
[[4,0,8][5,1,2][7,3,6]] - f(n) = 21 + 7 = 28
[[5,4,8][0,1,2][7,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,8][1,0,2][7,3,6]]
Generated Nodes:
[[5,0,8][1,4,2][7,3,6]] - Already visited Node!
[[5,4,8][1,2,0][7,3,6]] - f(n) = 21 + 7 = 28
[[5,4,8][0,1,2][7,3,6]] - Already visited Node!
[[5,4,8][1,3,2][7,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,8,2][5,6,1][7,3,4]]
Generated Nodes:
[[8,0,2][5,6,1][7,3,4]] - f(n) = 21 + 7 = 28
[[5,8,2][0,6,1][7,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][6,0,1][7,3,4]]
Generated Nodes:
[[5,0,2][6,8,1][7,3,4]] - f(n) = 21 + 7 = 28
[[5,8,2][6,1,0][7,3,4]] - f(n) = 21 + 7 = 28
[[5,8,2][0,6,1][7,3,4]] - Already visited Node!
[[5,8,2][6,3,1][7,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,7,2][1,5,8][6,3,4]]
Generated Nodes:
[[7,0,2][1,5,8][6,3,4]] - Already visited Node!
[[1,7,2][0,5,8][6,3,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[0,7,2][6,5,8][3,1,4]]
Generated Nodes:
```

```
[[7,0,2][6,5,8][3,1,4]] - Already visited Node!
[[6,7,2][0,5,8][3,1,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,8,5][3,7,2][0,6,4]]
Generated Nodes:
[[1,8,5][0,7,2][3,6,4]] - Already visited Node!
[[1,8,5][3,7,2][6,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,5,0][7,6,2][8,3,4]]
Generated Nodes:
[[1,0,5][7,6,2][8,3,4]] - Already visited Node!
[[1,5,2][7,6,0][8,3,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,6,5][7,0,2][8,3,4]]
Generated Nodes:
[[1,0,5][7,6,2][8,3,4]] - Already visited Node!
[[1,6,5][7,2,0][8,3,4]] - f(n) = 21 + 7 = 28
[[1,6,5][0,7,2][8,3,4]] - f(n) =
                                  21 + 7 = 28
[[1,6,5][7,3,2][8,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,8,2][5,6,1][7,3,4]]
Generated Nodes:
[[8,0,2][5,6,1][7,3,4]] - f(n) = 21 + 7 = 28
[[5,8,2][0,6,1][7,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][6,0,1][7,3,4]]
Generated Nodes:
[[5,0,2][6,8,1][7,3,4]] - f(n) = 21 + 7 = 28
[[5,8,2][6,1,0][7,3,4]] - f(n) =
                                  21 + 7 = 28
[[5,8,2][0,6,1][7,3,4]] - Already visited Node!
[[5,8,2][6,3,1][7,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,7,2][3,5,8][6,4,1]]
Generated Nodes:
[[7,0,2][3,5,8][6,4,1]] - Already visited Node!
[[3,7,2][0,5,8][6,4,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[1,7,5][3,0,2][8,6,4]]
```

$$[[1,0,5][3,7,2][8,6,4]] - f(n) = 21 + 7 = 28$$

 $[[1,7,5][3,2,0][8,6,4]] - f(n) = 21 + 7 = 28$
 $[[1,7,5][0,3,2][8,6,4]] - Already visited Node!$
 $[[1,7,5][3,6,2][8,0,4]] - f(n) = 21 + 7 = 28$

Node Chosen for Level 21 - [[1,7,5][8,3,2][0,6,4]]

Generated Nodes:

[[1,7,5][0,3,2][8,6,4]] - Already visited Node! [[1,7,5][8,3,2][6,0,4]] - f(n) = 21 + 7 = 28

Node Chosen for Level 22 - [[5,2,4][3,8,6][1,0,7]]

Generated Nodes:

[[5,2,4][3,0,6][1,8,7]] - f(n) = 22 + 5 = 27 [[5,2,4][3,8,6][1,7,0]] - Already visited Node![[5,2,4][3,8,6][0,1,7]] - f(n) = 22 + 6 = 28

Node Chosen for Level 22 - [[7,0,5][3,4,6][2,8,1]]

Generated Nodes:

[[7,5,0][3,4,6][2,8,1]] - f(n) = 22 + 6 = 28 [[0,7,5][3,4,6][2,8,1]] - f(n) = 22 + 6 = 28[[7,4,5][3,0,6][2,8,1]] - Already visited Node!

Node Chosen for Level 22 - [[7,4,5][0,3,6][2,8,1]]

Generated Nodes :

[[0,4,5][7,3,6][2,8,1]] - f(n) = 22 + 6 = 28 [[7,4,5][3,0,6][2,8,1]] - Already visited Node![[7,4,5][2,3,6][0,8,1]] - Already visited Node!

Node Chosen for Level 22 - [[4,2,5][0,7,6][8,3,1]]

Generated Nodes:

[[0,2,5][4,7,6][8,3,1]] - f(n) = 22 + 5 = 27 [[4,2,5][7,0,6][8,3,1]] - Already visited Node![[4,2,5][8,7,6][0,3,1]] - f(n) = 22 + 6 = 28

Node Chosen for Level 22 - [[4,2,5][7,3,6][8,0,1]]

Generated Nodes:

[[4,2,5][7,0,6][8,3,1]] - Already visited Node! [[4,2,5][7,3,6][8,1,0]] - f(n) = 22 + 6 = 28

```
[[4,2,5][7,3,6][0,8,1]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[7,4,5][0,3,6][2,8,1]]
Generated Nodes:
[[0,4,5][7,3,6][2,8,1]] - f(n) = 22 + 6 = 28
[[7,4,5][3,0,6][2,8,1]] - Already visited Node!
[[7,4,5][2,3,6][0,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[8,1,2][5,4,6][7,0,3]]
Generated Nodes:
[[8,1,2][5,0,6][7,4,3]] - f(n) = 22 + 6 = 28
[[8,1,2][5,4,6][7,3,0]] - Already visited Node!
[[8,1,2][5,4,6][0,7,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,1][7,4,0][3,8,6]]
Generated Nodes:
[[5,2,0][7,4,1][3,8,6]] - f(n) = 22 + 6 = 28
[[5,2,1][7,0,4][3,8,6]] - Already visited Node!
[[5,2,1][7,4,6][3,8,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[5,2,1][0,7,4][3,8,6]]
Generated Nodes:
[[0,2,1][5,7,4][3,8,6]] - f(n) = 22 + 6 = 28
[[5,2,1][7,0,4][3,8,6]] - Already visited Node!
[[5,2,1][3,7,4][0,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,1][7,3,0][6,8,4]]
Generated Nodes:
[[5,2,0][7,3,1][6,8,4]] - Already visited Node!
[[5,2,1][7,0,3][6,8,4]] - f(n) = 22 + 6 = 28
[[5,2,1][7,3,4][6,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[0,4,2][8,5,6][7,3,1]]
Generated Nodes:
[[4,0,2][8,5,6][7,3,1]] - f(n) = 23 + 5 = 28
[[8,4,2][0,5,6][7,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,4][3,5,7][1,8,6]]
Generated Nodes:
```

```
[[2,0,4][3,5,7][1,8,6]] - f(n) = 23 + 6 = 29
[[3,2,4][0,5,7][1,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,2,4][1,5,7][0,8,6]]
Generated Nodes:
[[3,2,4][0,5,7][1,8,6]] - Already visited Node!
[[3,2,4][1,5,7][8,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,2,4][8,5,7][0,3,6]]
Generated Nodes:
[[1,2,4][0,5,7][8,3,6]] - Already visited Node!
[[1,2,4][8,5,7][3,0,6]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[0,8,2][4,5,6][3,7,1]]
Generated Nodes:
[[8,0,2][4,5,6][3,7,1]] - Already visited Node!
[[4,8,2][0,5,6][3,7,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,2,4][8,5,1][7,3,6]]
Generated Nodes:
[[2,0,4][8,5,1][7,3,6]] - f(n) = 23 + 6 = 29
[[8,2,4][0,5,1][7,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,4][8,5,6][3,7,1]]
Generated Nodes:
[[2,0,4][8,5,6][3,7,1]] - f(n) = 23 + 6 = 29
[[8,2,4][0,5,6][3,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,4][3,5,6][0,7,1]]
Generated Nodes:
[[8,2,4][0,5,6][3,7,1]] - Already visited Node!
[[8,2,4][3,5,6][7,0,1]] - f(n) = 23 + 4 = 27
Node Chosen for Level 24 - [[7,2,3][0,5,4][1,8,6]]
Generated Nodes:
[[0,2,3][7,5,4][1,8,6]] - f(n) = 24 + 4 = 28
[[7,2,3][5,0,4][1,8,6]] - f(n) = 24 + 5 = 29
```

```
[[7,2,3][1,5,4][0,8,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,5,2][0,7,6][3,8,1]]
Generated Nodes:
[[0,5,2][4,7,6][3,8,1]] - f(n) = 22 + 5 = 27
[[4,5,2][7,0,6][3,8,1]] - Already visited Node!
[[4,5,2][3,7,6][0,8,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,4,5][0,2,6][1,8,3]]
Generated Nodes:
[[0,4,5][7,2,6][1,8,3]] - f(n) = 22 + 6 = 28
[[7,4,5][2,0,6][1,8,3]] - f(n) = 22 + 6 = 28
[[7,4,5][1,2,6][0,8,3]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,8][4,2,6][3,0,1]]
Generated Nodes:
[[7,5,8][4,0,6][3,2,1]] - f(n) = 22 + 6 = 28
[[7,5,8][4,2,6][3,1,0]] - Already visited Node!
[[7,5,8][4,2,6][0,3,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,4][3,8,6][1,0,7]]
Generated Nodes:
[[5,2,4][3,0,6][1,8,7]] - f(n) = 22 + 5 = 27
[[5,2,4][3,8,6][1,7,0]] - Already visited Node!
[[5,2,4][3,8,6][0,1,7]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,1][0,7,6][8,3,4]]
Generated Nodes:
[[0,2,1][5,7,6][8,3,4]] - f(n) = 22 + 6 = 28
[[5,2,1][7,0,6][8,3,4]] - Already visited Node!
[[5,2,1][8,7,6][0,3,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,1][7,3,6][8,0,4]]
Generated Nodes:
[[5,2,1][7,0,6][8,3,4]] - Already visited Node!
[[5,2,1][7,3,6][8,4,0]] - f(n) = 22 + 6 = 28
[[5,2,1][7,3,6][0,8,4]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[7,4,5][0,2,6][1,8,3]]
```

```
Generated Nodes:
```

```
[[0,4,5][7,2,6][1,8,3]] - f(n) = 22 + 6 = 28

[[7,4,5][2,0,6][1,8,3]] - f(n) = 22 + 6 = 28

[[7,4,5][1,2,6][0,8,3]] - Already visited Node!
```

Node Chosen for Level 24 - [[1,2,4][0,7,6][5,8,3]]

Generated Nodes:

```
[[0,2,4][1,7,6][5,8,3]] - f(n) = 24 + 5 = 29

[[1,2,4][7,0,6][5,8,3]] - f(n) = 24 + 4 = 28

[[1,2,4][5,7,6][0,8,3]] - Already visited Node!
```

Node Chosen for Level 24 - [[1,0,2][4,7,6][5,8,3]]

Generated Nodes:

```
[[1,2,0][4,7,6][5,8,3]] - f(n) = 24 + 3 = 27

[[0,1,2][4,7,6][5,8,3]] - f(n) = 24 + 5 = 29

[[1,7,2][4,0,6][5,8,3]] - Already visited Node!
```

Node Chosen for Level 22 - [[7,2,8][3,5,0][4,1,6]]

Generated Nodes:

```
[[7,2,0][3,5,8][4,1,6]] - Already visited Node! [[7,2,8][3,0,5][4,1,6]] - f(n) = 22 + 7 = 29 [[7,2,8][3,5,6][4,1,0]] - f(n) = 22 + 5 = 27
```

Node Chosen for Level 23 - [[0,2,6][5,3,4][7,8,1]]

Generated Nodes:

[[2,0,6][5,3,4][7,8,1]] - f(n) = 23 + 6 = 29[[5,2,6][0,3,4][7,8,1]] - Already visited Node!

Node Chosen for Level 23 - [[5,2,6][3,0,4][7,8,1]]

Generated Nodes:

```
[[5,0,6][3,2,4][7,8,1]] - f(n) = 23 + 6 = 29

[[5,2,6][3,4,0][7,8,1]] - f(n) = 23 + 5 = 28

[[5,2,6][0,3,4][7,8,1]] - Already visited Node!

[[5,2,6][3,8,4][7,0,1]] - f(n) = 23 + 6 = 29
```

Node Chosen for Level 23 - [[0,2,6][5,4,1][7,8,3]]

Generated Nodes:

```
[[2,0,6][5,4,1][7,8,3]] - f(n) = 23 + 6 = 29
[[5,2,6][0,4,1][7,8,3]] - Already visited Node!
```

```
Node Chosen for Level 22 - [[8,7,4][2,5,6][3,0,1]]
Generated Nodes:
[[8,7,4][2,0,6][3,5,1]] - f(n) = 22 + 7 = 29
[[8,7,4][2,5,6][3,1,0]] - Already visited Node!
[[8,7,4][2,5,6][0,3,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[4,2,8][7,5,0][3,1,6]]
Generated Nodes:
[[4,2,0][7,5,8][3,1,6]] - Already visited Node!
[[4,2,8][7,0,5][3,1,6]] - f(n) = 22 + 7 = 29
[[4,2,8][7,5,6][3,1,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[8,0,5][4,1,2][7,3,6]]
Generated Nodes:
[[8,5,0][4,1,2][7,3,6]] - f(n) = 22 + 6 = 28
[[0,8,5][4,1,2][7,3,6]] - Already visited Node!
[[8,1,5][4,0,2][7,3,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,8][1,5,0][6,3,4]]
Generated Nodes:
[[7,2,0][1,5,8][6,3,4]] - Already visited Node!
[[7,2,8][1,0,5][6,3,4]] - f(n) = 22 + 7 = 29
[[7,2,8][1,5,4][6,3,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,8][6,5,0][3,1,4]]
Generated Nodes:
[[7,2,0][6,5,8][3,1,4]] - Already visited Node!
[[7,2,8][6,0,5][3,1,4]] - f(n) = 22 + 7 = 29
[[7,2,8][6,5,4][3,1,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,8][3,5,0][6,4,1]]
Generated Nodes:
[[7,2,0][3,5,8][6,4,1]] - Already visited Node!
[[7,2,8][3,0,5][6,4,1]] - f(n) = 22 + 7 = 29
[[7,2,8][3,5,1][6,4,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[0,4,2][7,5,6][3,8,1]]
```

Generated Nodes:

```
[[4,0,2][7,5,6][3,8,1]] - Already visited Node!
[[7,4,2][0,5,6][3,8,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 24 - [[1,2,4][8,5,0][7,3,6]]
Generated Nodes:
[[1,2,0][8,5,4][7,3,6]] - Already visited Node!
[[1,2,4][8,0,5][7,3,6]] - f(n) = 24 + 5 = 29
[[1,2,4][8,5,6][7,3,0]] - f(n) = 24 + 3 = 27
Node Chosen for Level 24 - [[1,2,4][8,5,0][7,3,6]]
Generated Nodes:
[[1,2,0][8,5,4][7,3,6]] - Already visited Node!
[[1,2,4][8,0,5][7,3,6]] - f(n) = 24 + 5 = 29
[[1,2,4][8,5,6][7,3,0]] - f(n) = 24 + 3 = 27
Node Chosen for Level 24 - [[5,2,6][4,1,0][7,8,3]]
Generated Nodes:
[[5,2,0][4,1,6][7,8,3]] - Already visited Node!
[[5,2,6][4,0,1][7,8,3]] - Already visited Node!
[[5,2,6][4,1,3][7,8,0]] - f(n) = 24 + 4 = 28
Node Chosen for Level 21 - [[3,2,0][1,7,4][8,5,6]]
Generated Nodes:
[[3,0,2][1,7,4][8,5,6]] - Already visited Node!
[[3,2,4][1,7,0][8,5,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[3,7,2][1,4,6][8,5,0]]
Generated Nodes:
[[3,7,2][1,4,0][8,5,6]] - Already visited Node!
[[3,7,2][1,4,6][8,0,5]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[1,7,4][0,2,6][8,5,3]]
Generated Nodes:
[[0,7,4][1,2,6][8,5,3]] - Already visited Node!
[[1,7,4][2,0,6][8,5,3]] - f(n) = 22 + 6 = 28
[[1,7,4][8,2,6][0,5,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,4][0,6,1][7,3,8]]
```

```
Generated Nodes:
[[0,2,4][5,6,1][7,3,8]] - f(n) = 22 + 6 = 28
[[5,2,4][6,0,1][7,3,8]] - f(n) = 22 + 6 = 28
[[5,2,4][7,6,1][0,3,8]] - Already visited Node!
Node Chosen for Level 22 - [[2,3,4][7,5,0][1,8,6]]
Generated Nodes:
[[2,3,0][7,5,4][1,8,6]] - f(n) = 22 + 6 = 28
[[2,3,4][7,0,5][1,8,6]] - Already visited Node!
[[2,3,4][7,5,6][1,8,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 23 - [[7,2,4][5,1,6][3,8,0]]
Generated Nodes:
[[7,2,4][5,1,0][3,8,6]] - f(n) = 23 + 6 = 29
[[7,2,4][5,1,6][3,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][4,1,6][8,5,3]]
Generated Nodes:
[[7,0,2][4,1,6][8,5,3]] - f(n) = 23 + 6 = 29
[[7,2,6][4,1,0][8,5,3]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,0][3,7,1][6,5,4]]
Generated Nodes:
[[8,0,2][3,7,1][6,5,4]] - Already visited Node!
[[8,2,1][3,7,0][6,5,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[3,2,0][5,7,8][1,6,4]]
Generated Nodes:
[[3,0,2][5,7,8][1,6,4]] - Already visited Node!
[[3,2,8][5,7,0][1,6,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[5,4,3][7,2,0][1,8,6]]
Generated Nodes:
[[5,4,0][7,2,3][1,8,6]] - Already visited Node!
[[5,4,3][7,0,2][1,8,6]] - Already visited Node!
[[5,4,3][7,2,6][1,8,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 22 - [[5,2,4][0,8,3][7,1,6]]
```

```
Generated Nodes:
```

```
[[0,2,4][5,8,3][7,1,6]] - f(n) = 22 + 6 = 28
[[5,2,4][8,0,3][7,1,6]] - f(n) = 22 + 6 = 28
[[5,2,4][7,8,3][0,1,6]] - Already visited Node!
```

Node Chosen for Level 23 - [[3,2,0][5,7,6][4,8,1]]

Generated Nodes:

```
[[3,0,2][5,7,6][4,8,1]] - Already visited Node!
[[3,2,6][5,7,0][4,8,1]] - f(n) = 23 + 6 = 29
```

Node Chosen for Level 22 - [[2,1,4][0,5,8][7,3,6]]

Generated Nodes:

```
[[0,1,4][2,5,8][7,3,6]] - f(n) = 22 + 6 = 28
[[2,1,4][5,0,8][7,3,6]] - Already visited Node!
[[2,1,4][7,5,8][0,3,6]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[1,5,4][0,2,8][7,3,6]]

Generated Nodes:

```
[[0,5,4][1,2,8][7,3,6]] - Already visited Node!
[[1,5,4][2,0,8][7,3,6]] - f(n) = 22 + 6 = 28
[[1,5,4][7,2,8][0,3,6]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 24 - [[2,1,4][0,5,6][7,8,3]]

Generated Nodes:

```
[[0,1,4][2,5,6][7,8,3]] - f(n) = 24 + 4 = 28
[[2,1,4][5,0,6][7,8,3]] - Already visited Node!
[[2,1,4][7,5,6][0,8,3]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 24 - [[1,5,4][0,2,6][7,8,3]]

Generated Nodes:

```
[[0,5,4][1,2,6][7,8,3]] - Already visited Node!
[[1,5,4][2,0,6][7,8,3]] - f(n) = 24 + 4 = 28
[[1,5,4][7,2,6][0,8,3]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 22 - [[8,2,6][0,5,7][3,4,1]]

Generated Nodes:

[[0,2,6][8,5,7][3,4,1]] - f(n) = 22 + 6 = 28[[8,2,6][5,0,7][3,4,1]] - Already visited Node! [[8,2,6][3,5,7][0,4,1]] - f(n) = 22 + 6 = 28

```
Node Chosen for Level 22 - [[7,0,2][6,5,1][4,8,3]]
Generated Nodes:
[[7,2,0][6,5,1][4,8,3]] - f(n) = 22 + 5 = 27
[[0,7,2][6,5,1][4,8,3]] - f(n) = 22 + 6 = 28
[[7,5,2][6,0,1][4,8,3]] - Already visited Node!
Node Chosen for Level 22 - [[5,3,2][0,4,6][7,1,8]]
Generated Nodes:
[[0,3,2][5,4,6][7,1,8]] - f(n) = 22 + 6 = 28
[[5,3,2][4,0,6][7,1,8]] - f(n) = 22 + 5 = 27
[[5,3,2][7,4,6][0,1,8]] - Already visited Node!
Node Chosen for Level 23 - [[1,2,0][5,7,6][8,4,3]]
Generated Nodes:
[[1,0,2][5,7,6][8,4,3]] - Already visited Node!
[[1,2,6][5,7,0][8,4,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,3][1,6,5][0,8,4]]
Generated Nodes:
[[7,2,3][0,6,5][1,8,4]] - f(n) = 23 + 5 = 28
[[7,2,3][1,6,5][8,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][4,3,8][0,1,6]]
Generated Nodes:
[[7,5,2][0,3,8][4,1,6]] - Already visited Node!
[[7,5,2][4,3,8][1,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,4,2][7,6,1][0,8,3]]
Generated Nodes:
[[5,4,2][0,6,1][7,8,3]] - f(n) = 21 + 6 = 27
[[5,4,2][7,6,1][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[2,4,8][5,7,6][3,1,0]]
Generated Nodes:
[[2,4,8][5,7,0][3,1,6]] - Already visited Node!
[[2,4,8][5,7,6][3,0,1]] - f(n) = 21 + 7 = 28
```

```
Node Chosen for Level 21 - [[2,7,4][5,8,6][3,1,0]]
Generated Nodes:
[[2,7,4][5,8,0][3,1,6]] - Already visited Node!
[[2,7,4][5,8,6][3,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[8,7,5][1,2,6][4,3,0]]
Generated Nodes:
[[8,7,5][1,2,0][4,3,6]] - Already visited Node!
[[8,7,5][1,2,6][4,0,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,4,1][7,2,6][8,3,0]]
Generated Nodes:
[[5,4,1][7,2,0][8,3,6]] - Already visited Node!
[[5,4,1][7,2,6][8,0,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 23 - [[7,2,6][1,5,3][0,8,4]]
Generated Nodes:
[[7,2,6][0,5,3][1,8,4]] - f(n) = 23 + 5 = 28
[[7,2,6][1,5,3][8,0,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,4][2,5,0][1,8,6]]
Generated Nodes:
[[3,7,0][2,5,4][1,8,6]] - f(n) = 22 + 6 = 28
[[3,7,4][2,0,5][1,8,6]] - Already visited Node!
[[3,7,4][2,5,6][1,8,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 23 - [[7,2,4][1,3,6][5,8,0]]
Generated Nodes:
[[7,2,4][1,3,0][5,8,6]] - f(n) = 23 + 6 = 29
[[7,2,4][1,3,6][5,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][4,3,6][8,1,5]]
Generated Nodes:
[[7,0,2][4,3,6][8,1,5]] - f(n) = 23 + 6 = 29
[[7,2,6][4,3,0][8,1,5]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][0,4,8][7,3,1]]
```

```
Generated Nodes:
[[0,2,6][5,4,8][7,3,1]] - f(n) = 22 + 6 = 28
[[5,2,6][4,0,8][7,3,1]] - Already visited Node!
[[5,2,6][7,4,8][0,3,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][0,8,1][7,3,4]]
Generated Nodes:
[[0,2,6][5,8,1][7,3,4]] - f(n) = 22 + 6 = 28
[[5,2,6][8,0,1][7,3,4]] - f(n) = 22 + 6 = 28
[[5,2,6][7,8,1][0,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,4][2,8,6][3,1,0]]
Generated Nodes:
[[7,5,4][2,8,0][3,1,6]] - Already visited Node!
[[7,5,4][2,8,6][3,0,1]] - f(n) = 21 + 7 = 28
Node Chosen for Level 22 - [[3,4,7][0,5,2][1,8,6]]
Generated Nodes:
[[0,4,7][3,5,2][1,8,6]] - f(n) = 22 + 6 = 28
[[3,4,7][5,0,2][1,8,6]] - Already visited Node!
[[3,4,7][1,5,2][0,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,4,7][0,5,2][8,3,6]]
Generated Nodes:
[[0,4,7][1,5,2][8,3,6]] - f(n) = 22 + 7 = 29
[[1,4,7][5,0,2][8,3,6]] - Already visited Node!
[[1,4,7][8,5,2][0,3,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[5,3,2][4,7,6][0,8,1]]
Generated Nodes:
[[5,3,2][0,7,6][4,8,1]] - Already visited Node!
[[5,3,2][4,7,6][8,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[7,0,2][1,5,6][4,3,8]]
Generated Nodes:
[[7,2,0][1,5,6][4,3,8]] - f(n) = 22 + 5 = 27
[[0,7,2][1,5,6][4,3,8]] - f(n) = 22 + 6 = 28
[[7,5,2][1,0,6][4,3,8]] - Already visited Node!
```

```
Node Chosen for Level 21 - [[8,5,2][3,7,6][1,4,0]]
Generated Nodes:
[[8,5,2][3,7,0][1,4,6]] - Already visited Node!
[[8,5,2][3,7,6][1,0,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[8,2,7][3,0,5][1,4,6]]
Generated Nodes:
[[8,0,7][3,2,5][1,4,6]] - Already visited Node!
[[8,2,7][3,5,0][1,4,6]] - f(n) = 21 + 6 = 27
[[8,2,7][0,3,5][1,4,6]] - f(n) = 21 + 7 = 28
[[8,2,7][3,4,5][1,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,5,2][4,7,8][3,1,6]]
Generated Nodes:
[[5,0,2][4,7,8][3,1,6]] - f(n) = 21 + 7 = 28
[[4,5,2][0,7,8][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[4,2,8][7,0,5][3,1,6]]
Generated Nodes:
[[4,0,8][7,2,5][3,1,6]] - Already visited Node!
[[4,2,8][7,5,0][3,1,6]] - Already visited Node!
[[4,2,8][0,7,5][3,1,6]] - f(n) = 21 + 7 = 28
[[4,2,8][7,1,5][3,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,4,5][3,0,1][6,8,2]]
Generated Nodes:
[[7,0,5][3,4,1][6,8,2]] - f(n) = 21 + 7 = 28
[[7,4,5][3,1,0][6,8,2]] - f(n) = 21 + 7 = 28
[[7,4,5][0,3,1][6,8,2]] - f(n) = 21 + 7 = 28
[[7,4,5][3,8,1][6,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[4,5,2][7,1,6][8,3,0]]
Generated Nodes:
[[4,5,2][7,1,0][8,3,6]] - Already visited Node!
[[4,5,2][7,1,6][8,0,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[4,1,5][7,2,6][8,3,0]]
Generated Nodes:
```

```
[[4,1,5][7,2,0][8,3,6]] - Already visited Node!
[[4,1,5][7,2,6][8,0,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[4,1,5][7,3,2][0,8,6]]
Generated Nodes:
[[4,1,5][0,3,2][7,8,6]] - f(n) = 21 + 6 = 27
[[4,1,5][7,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,2,0][5,3,4][1,7,6]]
Generated Nodes:
[[8,0,2][5,3,4][1,7,6]] - Already visited Node!
[[8,2,4][5,3,0][1,7,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,0][3,8,7][1,6,4]]
Generated Nodes:
[[5,0,2][3,8,7][1,6,4]] - Already visited Node!
[[5,2,7][3,8,0][1,6,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[3,7,5][1,0,2][6,8,4]]
Generated Nodes:
[[3,0,5][1,7,2][6,8,4]] - f(n) = 21 + 7 = 28
[[3,7,5][1,2,0][6,8,4]] - f(n) = 21 + 7 = 28
[[3,7,5][0,1,2][6,8,4]] - f(n) = 21 + 7 = 28
[[3,7,5][1,8,2][6,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,8,5][3,0,6][1,4,2]]
Generated Nodes:
[[7,0,5][3,8,6][1,4,2]] - f(n) = 21 + 7 = 28
[[7,8,5][3,6,0][1,4,2]] - Already visited Node!
[[7,8,5][0,3,6][1,4,2]] - f(n) = 21 + 7 = 28
[[7,8,5][3,4,6][1,0,2]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,0][7,6,8][3,1,4]]
Generated Nodes:
[[5,0,2][7,6,8][3,1,4]] - Already visited Node!
[[5,2,8][7,6,0][3,1,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[8,2,7][1,0,5][3,6,4]]
Generated Nodes:
```

```
[[8,0,7][1,2,5][3,6,4]] - Already visited Node!
[[8,2,7][1,5,0][3,6,4]] - f(n) = 21 + 6 = 27
[[8,2,7][0,1,5][3,6,4]] - f(n) = 21 + 7 = 28
[[8,2,7][1,6,5][3,0,4]] - f(n) =
                                21 + 7 = 28
Node Chosen for Level 21 - [[8,7,5][1,0,6][3,4,2]]
Generated Nodes:
[[8,0,5][1,7,6][3,4,2]] - f(n) = 21 + 7 = 28
[[8,7,5][1,6,0][3,4,2]] - Already visited Node!
[[8,7,5][0,1,6][3,4,2]] - f(n) = 21 + 7 = 28
[[8,7,5][1,4,6][3,0,2]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,1,5][8,4,6][3,2,0]]
Generated Nodes:
[[7,1,5][8,4,0][3,2,6]] - Already visited Node!
[[7,1,5][8,4,6][3,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,5][6,3,2][0,8,4]]
Generated Nodes:
[[7,1,5][0,3,2][6,8,4]] - Already visited Node!
[[7,1,5][6,3,2][8,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,6,2][7,3,1][0,8,4]]
Generated Nodes:
[[5,6,2][0,3,1][7,8,4]] - f(n) = 21 + 6 = 27
[[5,6,2][7,3,1][8,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][6,1,4][0,8,3]]
Generated Nodes:
[[7,5,2][0,1,4][6,8,3]] - f(n) = 21 + 7 = 28
[[7,5,2][6,1,4][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,1][4,0,2][8,3,6]]
Generated Nodes:
[[7,0,1][4,5,2][8,3,6]] - f(n) = 21 + 6 = 27
[[7,5,1][4,2,0][8,3,6]] - f(n) =
                                  21 + 7 = 28
[[7,5,1][0,4,2][8,3,6]] - Already visited Node!
[[7,5,1][4,3,2][8,0,6]] - f(n) = 21 + 7 = 28
```

```
Node Chosen for Level 21 - [[5,4,1][7,2,6][8,3,0]]
Generated Nodes:
[[5,4,1][7,2,0][8,3,6]] - Already visited Node!
[[5,4,1][7,2,6][8,0,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,4,1][7,3,2][0,8,6]]
Generated Nodes:
[[5,4,1][0,3,2][7,8,6]] - f(n) = 21 + 6 = 27
[[5,4,1][7,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,0][8,1,4][3,7,6]]
Generated Nodes:
[[5,0,2][8,1,4][3,7,6]] - Already visited Node!
[[5,2,4][8,1,0][3,7,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,1,2][8,4,6][3,7,0]]
Generated Nodes:
[[5,1,2][8,4,0][3,7,6]] - Already visited Node!
[[5,1,2][8,4,6][3,0,7]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[5,2,0][7,1,3][8,6,4]]
Generated Nodes:
[[5,0,2][7,1,3][8,6,4]] - Already visited Node!
[[5,2,3][7,1,0][8,6,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 21 - [[5,1,2][7,6,3][0,8,4]]
Generated Nodes:
[[5,1,2][0,6,3][7,8,4]] - f(n) = 21 + 6 = 27
[[5,1,2][7,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,3,5][1,6,2][0,8,4]]
Generated Nodes:
[[7,3,5][0,6,2][1,8,4]] - f(n) = 21 + 7 = 28
[[7,3,5][1,6,2][8,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,2,0][7,1,3][8,6,4]]
Generated Nodes:
```

```
[[5,0,2][7,1,3][8,6,4]] - Already visited Node!
[[5,2,3][7,1,0][8,6,4]] - f(n) = 21 + 6 = 27
Node Chosen for Level 22 - [[5,2,4][0,6,1][7,3,8]]
Generated Nodes:
[[0,2,4][5,6,1][7,3,8]] - f(n) = 22 + 6 = 28
[[5,2,4][6,0,1][7,3,8]] - f(n) = 22 + 6 = 28
[[5,2,4][7,6,1][0,3,8]] - Already visited Node!
Node Chosen for Level 22 - [[8,1,7][4,5,0][3,6,2]]
Generated Nodes:
[[8,1,0][4,5,7][3,6,2]] - f(n) = 22 + 6 = 28
[[8,1,7][4,0,5][3,6,2]] - Already visited Node!
[[8,1,7][4,5,2][3,6,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,0,2][8,5,6][4,1,3]]
Generated Nodes:
[[7,2,0][8,5,6][4,1,3]] - f(n) = 22 + 5 = 27
[[0,7,2][8,5,6][4,1,3]] - f(n) = 22 + 6 = 28
[[7,5,2][8,0,6][4,1,3]] - Already visited Node!
Node Chosen for Level 22 - [[1,5,8][0,4,2][7,3,6]]
Generated Nodes:
[[0,5,8][1,4,2][7,3,6]] - Already visited Node!
[[1,5,8][4,0,2][7,3,6]] - f(n) = 22 + 5 = 27
[[1,5,8][7,4,2][0,3,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[5,3,2][4,7,6][0,8,1]]
Generated Nodes:
[[5,3,2][0,7,6][4,8,1]] - Already visited Node!
[[5,3,2][4,7,6][8,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[3,7,2][1,5,6][4,8,0]]
Generated Nodes:
[[3,7,2][1,5,0][4,8,6]] - f(n) = 23 + 6 = 29
[[3,7,2][1,5,6][4,0,8]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,1][0,6,8][7,3,4]]
```

```
Generated Nodes:
[[0,2,1][5,6,8][7,3,4]] - f(n) = 22 + 6 = 28
[[5,2,1][6,0,8][7,3,4]] - f(n) = 22 + 6 = 28
[[5,2,1][7,6,8][0,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,1][0,8,4][7,3,6]]
Generated Nodes:
[[0,2,1][5,8,4][7,3,6]] - f(n) = 22 + 6 = 28
[[5,2,1][8,0,4][7,3,6]] - f(n) = 22 + 6 = 28
[[5,2,1][7,8,4][0,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,2,4][5,3,7][0,8,6]]
Generated Nodes:
[[1,2,4][0,3,7][5,8,6]] - f(n) = 23 + 5 = 28
[[1,2,4][5,3,7][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,2,0][5,7,6][8,4,3]]
Generated Nodes:
[[1,0,2][5,7,6][8,4,3]] - Already visited Node!
[[1,2,6][5,7,0][8,4,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,2,0][3,7,4][5,8,6]]
Generated Nodes:
[[1,0,2][3,7,4][5,8,6]] - Already visited Node!
[[1,2,4][3,7,0][5,8,6]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[1,7,2][3,4,6][5,8,0]]
Generated Nodes:
[[1,7,2][3,4,0][5,8,6]] - Already visited Node!
[[1,7,2][3,4,6][5,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[1,0,2][7,5,8][3,6,4]]
Generated Nodes:
[[1,2,0][7,5,8][3,6,4]] - f(n) = 22 + 5 = 27
[[0,1,2][7,5,8][3,6,4]] - f(n) = 22 + 7 = 29
[[1,5,2][7,0,8][3,6,4]] - Already visited Node!
```

Node Chosen for Level 22 - [[1,8,5][0,6,2][7,3,4]]

```
Generated Nodes:
[[0,8,5][1,6,2][7,3,4]] - f(n) = 22 + 7 = 29
[[1,8,5][6,0,2][7,3,4]] - f(n) = 22 + 6 = 28
[[1,8,5][7,6,2][0,3,4]] - Already visited Node!
Node Chosen for Level 23 - [[3,5,2][4,7,6][1,8,0]]
Generated Nodes:
[[3,5,2][4,7,0][1,8,6]] - Already visited Node!
[[3,5,2][4,7,6][1,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[3,2,7][4,0,5][1,8,6]]
Generated Nodes:
[[3,0,7][4,2,5][1,8,6]] - Already visited Node!
[[3,2,7][4,5,0][1,8,6]] - f(n) = 23 + 4 = 27
[[3,2,7][0,4,5][1,8,6]] - f(n) = 23 + 6 = 29
[[3,2,7][4,8,5][1,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,0][1,8,6][7,4,3]]
Generated Nodes:
[[5,0,2][1,8,6][7,4,3]] - Already visited Node!
[[5,2,6][1,8,0][7,4,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[1,0,3][5,4,2][7,8,6]]
Generated Nodes:
[[1,3,0][5,4,2][7,8,6]] - Already visited Node!
[[0,1,3][5,4,2][7,8,6]] - f(n) = 24 + 5 = 29
[[1,4,3][5,0,2][7,8,6]] - f(n) = 24 + 4 = 28
Node Chosen for Level 23 - [[7,2,1][6,5,4][0,8,3]]
Generated Nodes:
[[7,2,1][0,5,4][6,8,3]] - f(n) = 23 + 5 = 28
[[7,2,1][6,5,4][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[1,5,2][4,7,6][8,3,0]]
Generated Nodes:
[[1,5,2][4,7,0][8,3,6]] - Already visited Node!
[[1,5,2][4,7,6][8,0,3]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[1,2,7][4,0,5][8,3,6]]
```

```
Generated Nodes:
```

```
[[1,0,7][4,2,5][8,3,6]] - Already visited Node! [[1,2,7][4,5,0][8,3,6]] - f(n) = 23 + 4 = 27 [[1,2,7][0,4,5][8,3,6]] - f(n) = 23 + 6 = 29 [[1,2,7][4,3,5][8,0,6]] - f(n) = 23 + 5 = 28
```

Node Chosen for Level 24 - [[4,3,2][0,5,6][7,8,1]]

Generated Nodes:

[[0,3,2][4,5,6][7,8,1]] - f(n) = 24 + 3 = 27 [[4,3,2][5,0,6][7,8,1]] - Already visited Node![[4,3,2][7,5,6][0,8,1]] - f(n) = 24 + 5 = 29

Node Chosen for Level 22 - [[8,2,1][0,5,7][3,6,4]]

Generated Nodes:

```
[[0,2,1][8,5,7][3,6,4]] - f(n) = 22 + 6 = 28

[[8,2,1][5,0,7][3,6,4]] - Already visited Node!

[[8,2,1][3,5,7][0,6,4]] - f(n) = 22 + 6 = 28
```

Node Chosen for Level 22 - [[5,4,8][0,2,6][7,3,1]]

Generated Nodes:

```
[[0,4,8][5,2,6][7,3,1]] - f(n) = 22 + 6 = 28

[[5,4,8][2,0,6][7,3,1]] - f(n) = 22 + 6 = 28

[[5,4,8][7,2,6][0,3,1]] - Already visited Node!
```

Node Chosen for Level 22 - [[4,8,5][0,2,6][7,3,1]]

Generated Nodes:

[[0,8,5][4,2,6][7,3,1]] - f(n) = 22 + 5 = 27 [[4,8,5][2,0,6][7,3,1]] - f(n) = 22 + 6 = 28[[4,8,5][7,2,6][0,3,1]] - Already visited Node!

Node Chosen for Level 22 - [[5,4,8][0,2,6][7,3,1]]

Generated Nodes:

```
[[0,4,8][5,2,6][7,3,1]] - f(n) = 22 + 6 = 28

[[5,4,8][2,0,6][7,3,1]] - f(n) = 22 + 6 = 28

[[5,4,8][7,2,6][0,3,1]] - Already visited Node!
```

Node Chosen for Level 22 - [[1,0,5][7,3,2][6,8,4]]

Generated Nodes:

```
[[1,5,0][7,3,2][6,8,4]] - f(n) = 22 + 6 = 28
[[0,1,5][7,3,2][6,8,4]] - Already visited Node!
[[1,3,5][7,0,2][6,8,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,0,5][7,8,6][3,4,2]]
Generated Nodes:
[[1,5,0][7,8,6][3,4,2]] - f(n) = 22 + 6 = 28
[[0,1,5][7,8,6][3,4,2]] - Already visited Node!
[[1,8,5][7,0,6][3,4,2]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,0,2][6,5,3][1,8,4]]
Generated Nodes:
[[7,2,0][6,5,3][1,8,4]] - f(n) = 22 + 5 = 27
[[0,7,2][6,5,3][1,8,4]] - f(n) = 22 + 6 = 28
[[7,5,2][6,0,3][1,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,3][4,0,2][1,8,6]]
Generated Nodes:
[[7,0,3][4,5,2][1,8,6]] - f(n) = 23 + 4 = 27
[[7,5,3][4,2,0][1,8,6]] - f(n) = 23 + 5 = 28
[[7,5,3][0,4,2][1,8,6]] - Already visited Node!
[[7,5,3][4,8,2][1,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,4,3][7,2,6][1,8,0]]
Generated Nodes:
[[5,4,3][7,2,0][1,8,6]] - Already visited Node!
[[5,4,3][7,2,6][1,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,5,2][8,4,6][7,3,0]]
Generated Nodes:
[[1,5,2][8,4,0][7,3,6]] - Already visited Node!
[[1,5,2][8,4,6][7,0,3]] - f(n) = 23 + 5 = 28
Node Chosen for Level 24 - [[1,2,4][0,5,6][8,7,3]]
Generated Nodes:
[[0,2,4][1,5,6][8,7,3]] - f(n) = 24 + 5 = 29
[[1,2,4][5,0,6][8,7,3]] - Already visited Node!
[[1,2,4][8,5,6][0,7,3]] - f(n) = 24 + 4 = 28
Node Chosen for Level 24 - [[8,2,4][0,5,6][7,1,3]]
```

```
Generated Nodes:
[[0,2,4][8,5,6][7,1,3]] - f(n) = 24 + 4 = 28
[[8,2,4][5,0,6][7,1,3]] - Already visited Node!
[[8,2,4][7,5,6][0,1,3]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[7,8,2][4,5,6][3,1,0]]
Generated Nodes:
[[7,8,2][4,5,0][3,1,6]] - Already visited Node!
[[7,8,2][4,5,6][3,0,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 22 - [[1,7,4][2,5,0][8,3,6]]
Generated Nodes:
[[1,7,0][2,5,4][8,3,6]] - f(n) = 22 + 6 = 28
[[1,7,4][2,0,5][8,3,6]] - Already visited Node!
[[1,7,4][2,5,6][8,3,0]] - f(n) = 22 + 5 = 27
Node Chosen for Level 23 - [[0,7,2][4,3,6][5,8,1]]
Generated Nodes:
[[7,0,2][4,3,6][5,8,1]] - f(n) = 23 + 5 = 28
[[4,7,2][0,3,6][5,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[1,2,4][8,7,6][3,5,0]]
Generated Nodes:
[[1,2,4][8,7,0][3,5,6]] - Already visited Node!
[[1,2,4][8,7,6][3,0,5]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[5,2,0][7,1,6][3,8,4]]
Generated Nodes:
[[5,0,2][7,1,6][3,8,4]] - f(n) = 23 + 6 = 29
[[5,2,6][7,1,0][3,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,0][4,7,6][5,3,1]]
Generated Nodes:
[[8,0,2][4,7,6][5,3,1]] - Already visited Node!
[[8,2,6][4,7,0][5,3,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[1,7,2][0,5,8][6,3,4]]
```

```
Generated Nodes:
[[0,7,2][1,5,8][6,3,4]] - Already visited Node!
[[1,7,2][5,0,8][6,3,4]] - f(n) = 22 + 7 = 29
[[1,7,2][6,5,8][0,3,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[5,2,4][3,0,6][1,8,7]]
Generated Nodes:
[[5,0,4][3,2,6][1,8,7]] - f(n) = 23 + 6 = 29
[[5,2,4][3,6,0][1,8,7]] - f(n) = 23 + 6 = 29
[[5,2,4][0,3,6][1,8,7]] - f(n) = 23 + 5 = 28
[[5,2,4][3,8,6][1,0,7]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,5][4,7,6][8,3,1]]
Generated Nodes:
[[2,0,5][4,7,6][8,3,1]] - f(n) = 23 + 6 = 29
[[4,2,5][0,7,6][8,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[4,2,5][7,3,6][0,8,1]]
Generated Nodes:
[[4,2,5][0,3,6][7,8,1]] - f(n) = 23 + 4 = 27
[[4,2,5][7,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,1][7,4,6][3,8,0]]
Generated Nodes:
[[5,2,1][7,4,0][3,8,6]] - Already visited Node!
[[5,2,1][7,4,6][3,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[8,2,4][3,5,6][7,0,1]]
Generated Nodes:
[[8,2,4][3,0,6][7,5,1]] - f(n) = 24 + 5 = 29
[[8,2,4][3,5,6][7,1,0]] - f(n) = 24 + 4 = 28
[[8,2,4][3,5,6][0,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,2][4,7,6][3,8,1]]
Generated Nodes:
[[5,0,2][4,7,6][3,8,1]] - f(n) = 23 + 5 = 28
[[4,5,2][0,7,6][3,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,0,6][1,8,7]]
```

```
Generated Nodes:
[[5,0,4][3,2,6][1,8,7]] - f(n) = 23 + 6 = 29
[[5,2,4][3,6,0][1,8,7]] - f(n) = 23 + 6 = 29
[[5,2,4][0,3,6][1,8,7]] - f(n) = 23 + 5 = 28
[[5,2,4][3,8,6][1,0,7]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,1][7,3,6][0,8,4]]
Generated Nodes:
[[5,2,1][0,3,6][7,8,4]] - f(n) = 23 + 4 = 27
[[5,2,1][7,3,6][8,0,4]] - Already visited Node!
Node Chosen for Level 25 - [[1,2,0][4,7,6][5,8,3]]
Generated Nodes:
[[1,0,2][4,7,6][5,8,3]] - Already visited Node!
[[1,2,6][4,7,0][5,8,3]] - f(n) = 25 + 4 = 29
Node Chosen for Level 23 - [[7,2,8][3,5,6][4,1,0]]
Generated Nodes:
[[7,2,8][3,5,0][4,1,6]] - Already visited Node!
[[7,2,8][3,5,6][4,0,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[4,2,8][7,5,6][3,1,0]]
Generated Nodes:
[[4,2,8][7,5,0][3,1,6]] - Already visited Node!
[[4,2,8][7,5,6][3,0,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 25 - [[1,2,4][8,5,6][7,3,0]]
Generated Nodes:
[[1,2,4][8,5,0][7,3,6]] - Already visited Node!
[[1,2,4][8,5,6][7,0,3]] - f(n) = 25 + 3 = 28
Node Chosen for Level 25 - [[1,2,4][8,5,6][7,3,0]]
Generated Nodes:
[[1,2,4][8,5,0][7,3,6]] - Already visited Node!
[[1,2,4][8,5,6][7,0,3]] - f(n) = 25 + 3 = 28
Node Chosen for Level 23 - [[2,3,4][7,5,6][1,8,0]]
```

```
Generated Nodes:
[[2,3,4][7,5,0][1,8,6]] - Already visited Node!
[[2,3,4][7,5,6][1,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,4,3][7,2,6][1,8,0]]
Generated Nodes:
[[5,4,3][7,2,0][1,8,6]] - Already visited Node!
[[5,4,3][7,2,6][1,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,0][6,5,1][4,8,3]]
Generated Nodes:
[[7,0,2][6,5,1][4,8,3]] - Already visited Node!
[[7,2,1][6,5,0][4,8,3]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[5,3,2][4,0,6][7,1,8]]
Generated Nodes:
[[5,0,2][4,3,6][7,1,8]] - f(n) = 23 + 5 = 28
[[5,3,2][4,6,0][7,1,8]] - f(n) = 23 + 6 = 29
[[5,3,2][0,4,6][7,1,8]] - Already visited Node!
[[5,3,2][4,1,6][7,0,8]] - f(n) = 23 + 5 = 28
Node Chosen for Level 22 - [[5,4,2][0,6,1][7,8,3]]
Generated Nodes:
[[0,4,2][5,6,1][7,8,3]] - f(n) = 22 + 6 = 28
[[5,4,2][6,0,1][7,8,3]] - f(n) = 22 + 6 = 28
[[5,4,2][7,6,1][0,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,4][2,5,6][1,8,0]]
Generated Nodes:
[[3,7,4][2,5,0][1,8,6]] - Already visited Node!
[[3,7,4][2,5,6][1,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,0][1,5,6][4,3,8]]
Generated Nodes:
[[7,0,2][1,5,6][4,3,8]] - Already visited Node!
[[7,2,6][1,5,0][4,3,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[8,2,7][3,5,0][1,4,6]]
```

```
Generated Nodes:
```

```
[[8,2,0][3,5,7][1,4,6]] - f(n) = 22 + 6 = 28

[[8,2,7][3,0,5][1,4,6]] - Already visited Node!

[[8,2,7][3,5,6][1,4,0]] - f(n) = 22 + 5 = 27
```

Node Chosen for Level 22 - [[4,1,5][0,3,2][7,8,6]]

Generated Nodes:

```
[[0,1,5][4,3,2][7,8,6]] - f(n) = 22 + 5 = 27

[[4,1,5][3,0,2][7,8,6]] - f(n) = 22 + 6 = 28

[[4,1,5][7,3,2][0,8,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[8,2,7][1,5,0][3,6,4]]

Generated Nodes:

```
[[8,2,0][1,5,7][3,6,4]] - f(n) = 22 + 6 = 28

[[8,2,7][1,0,5][3,6,4]] - Already visited Node!

[[8,2,7][1,5,4][3,6,0]] - f(n) = 22 + 6 = 28
```

Node Chosen for Level 22 - [[5,6,2][0,3,1][7,8,4]]

Generated Nodes:

```
[[0,6,2][5,3,1][7,8,4]] - f(n) = 22 + 6 = 28

[[5,6,2][3,0,1][7,8,4]] - f(n) = 22 + 6 = 28

[[5,6,2][7,3,1][0,8,4]] - Already visited Node!
```

Node Chosen for Level 22 - [[7,0,1][4,5,2][8,3,6]]

Generated Nodes:

[[7,1,0][4,5,2][8,3,6]] - f(n) = 22 + 6 = 28 [[0,7,1][4,5,2][8,3,6]] - f(n) = 22 + 6 = 28[[7,5,1][4,0,2][8,3,6]] - Already visited Node!

Node Chosen for Level 22 - [[5,4,1][0,3,2][7,8,6]]

Generated Nodes:

```
[[0,4,1][5,3,2][7,8,6]] - f(n) = 22 + 6 = 28

[[5,4,1][3,0,2][7,8,6]] - f(n) = 22 + 6 = 28

[[5,4,1][7,3,2][0,8,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[5,2,3][7,1,0][8,6,4]]

Generated Nodes:

```
[[5,2,0][7,1,3][8,6,4]] - Already visited Node! [[5,2,3][7,0,1][8,6,4]] - f(n) = 22 + 6 = 28
```

```
[[5,2,3][7,1,4][8,6,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,1,2][0,6,3][7,8,4]]
Generated Nodes:
[[0,1,2][5,6,3][7,8,4]] - f(n) = 22 + 6 = 28
[[5,1,2][6,0,3][7,8,4]] - f(n) = 22 + 6 = 28
[[5,1,2][7,6,3][0,8,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,3][7,1,0][8,6,4]]
Generated Nodes:
[[5,2,0][7,1,3][8,6,4]] - Already visited Node!
[[5,2,3][7,0,1][8,6,4]] - f(n) = 22 + 6 = 28
[[5,2,3][7,1,4][8,6,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[7,2,0][8,5,6][4,1,3]]
Generated Nodes:
[[7,0,2][8,5,6][4,1,3]] - Already visited Node!
[[7,2,6][8,5,0][4,1,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,5,8][4,0,2][7,3,6]]
Generated Nodes:
[[1,0,8][4,5,2][7,3,6]] - f(n) = 23 + 4 = 27
[[1,5,8][4,2,0][7,3,6]] - f(n) = 23 + 5 = 28
[[1,5,8][0,4,2][7,3,6]] - Already visited Node!
[[1,5,8][4,3,2][7,0,6]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[1,2,0][7,5,8][3,6,4]]
Generated Nodes:
[[1,0,2][7,5,8][3,6,4]] - Already visited Node!
[[1,2,8][7,5,0][3,6,4]] - f(n) = 23 + 5 = 28
Node Chosen for Level 24 - [[3,2,7][4,5,0][1,8,6]]
Generated Nodes:
[[3,2,0][4,5,7][1,8,6]] - f(n) = 24 + 4 = 28
[[3,2,7][4,0,5][1,8,6]] - Already visited Node!
[[3,2,7][4,5,6][1,8,0]] - f(n) = 24 + 3 = 27
Node Chosen for Level 24 - [[1,2,7][4,5,0][8,3,6]]
Generated Nodes:
```

```
[[1,2,0][4,5,7][8,3,6]] - f(n) = 24 + 4 = 28
[[1,2,7][4,0,5][8,3,6]] - Already visited Node!
[[1,2,7][4,5,6][8,3,0]] - f(n) = 24 + 3 = 27
Node Chosen for Level 25 - [[0,3,2][4,5,6][7,8,1]]
Generated Nodes:
[[3,0,2][4,5,6][7,8,1]] - f(n) = 25 + 3 = 28
[[4,3,2][0,5,6][7,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,8,5][4,2,6][7,3,1]]
Generated Nodes:
[[8,0,5][4,2,6][7,3,1]] - f(n) = 23 + 5 = 28
[[4,8,5][0,2,6][7,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][6,5,3][1,8,4]]
Generated Nodes:
[[7,0,2][6,5,3][1,8,4]] - Already visited Node!
[[7,2,3][6,5,0][1,8,4]] - f(n) = 23 + 4 = 27
Node Chosen for Level 24 - [[7,0,3][4,5,2][1,8,6]]
Generated Nodes:
[[7,3,0][4,5,2][1,8,6]] - f(n) = 24 + 5 = 29
[[0,7,3][4,5,2][1,8,6]] - f(n) = 24 + 4 = 28
[[7,5,3][4,0,2][1,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,4][2,5,6][8,3,0]]
Generated Nodes:
[[1,7,4][2,5,0][8,3,6]] - Already visited Node!
[[1,7,4][2,5,6][8,0,3]] - f(n) = 23 + 5 = 28
Node Chosen for Level 24 - [[4,2,5][0,3,6][7,8,1]]
Generated Nodes:
[[0,2,5][4,3,6][7,8,1]] - f(n) = 24 + 3 = 27
[[4,2,5][3,0,6][7,8,1]] - f(n) = 24 + 4 = 28
[[4,2,5][7,3,6][0,8,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,1][0,3,6][7,8,4]]
Generated Nodes:
```

```
[[0,2,1][5,3,6][7,8,4]] - f(n) = 24 + 4 = 28
[[5,2,1][3,0,6][7,8,4]] - f(n) = 24 + 4 = 28
[[5,2,1][7,3,6][0,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,7][3,5,6][1,4,0]]
Generated Nodes:
[[8,2,7][3,5,0][1,4,6]] - Already visited Node!
[[8,2,7][3,5,6][1,0,4]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[0,1,5][4,3,2][7,8,6]]
Generated Nodes:
[[1,0,5][4,3,2][7,8,6]] - f(n) = 23 + 4 = 27
[[4,1,5][0,3,2][7,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[1,0,8][4,5,2][7,3,6]]
Generated Nodes:
[[1,8,0][4,5,2][7,3,6]] - f(n) = 24 + 4 = 28
[[0,1,8][4,5,2][7,3,6]] - f(n) = 24 + 5 = 29
[[1,5,8][4,0,2][7,3,6]] - Already visited Node!
Node Chosen for Level 25 - [[3,2,7][4,5,6][1,8,0]]
Generated Nodes:
[[3,2,7][4,5,0][1,8,6]] - Already visited Node!
[[3,2,7][4,5,6][1,0,8]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[1,2,7][4,5,6][8,3,0]]
Generated Nodes:
[[1,2,7][4,5,0][8,3,6]] - Already visited Node!
[[1,2,7][4,5,6][8,0,3]] - f(n) = 25 + 3 = 28
Node Chosen for Level 24 - [[7,2,3][6,5,0][1,8,4]]
Generated Nodes:
[[7,2,0][6,5,3][1,8,4]] - Already visited Node!
[[7,2,3][6,0,5][1,8,4]] - f(n) = 24 + 5 = 29
[[7,2,3][6,5,4][1,8,0]] - f(n) = 24 + 4 = 28
Node Chosen for Level 25 - [[0,2,5][4,3,6][7,8,1]]
Generated Nodes:
```

```
[[2,0,5][4,3,6][7,8,1]] - f(n) = 25 + 4 = 29
[[4,2,5][0,3,6][7,8,1]] - Already visited Node!
Node Chosen for Level 24 - [[1,0,5][4,3,2][7,8,6]]
Generated Nodes:
[[1,5,0][4,3,2][7,8,6]] - f(n) = 24 + 4 = 28
[[0,1,5][4,3,2][7,8,6]] - Already visited Node!
[[1,3,5][4,0,2][7,8,6]] - f(n) = 24 + 4 = 28
Node Chosen for Level 22 - [[7,0,6][3,2,5][4,8,1]]
Generated Nodes:
[[7,6,0][3,2,5][4,8,1]] - f(n) = 22 + 7 = 29
[[0,7,6][3,2,5][4,8,1]] - f(n) = 22 + 7 = 29
[[7,2,6][3,0,5][4,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,6][3,8,5][4,0,1]]
Generated Nodes:
[[7,2,6][3,0,5][4,8,1]] - Already visited Node!
[[7,2,6][3,8,5][4,1,0]] - Already visited Node!
[[7,2,6][3,8,5][0,4,1]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,4][5,2,6][3,1,8]]
Generated Nodes:
[[7,4,0][5,2,6][3,1,8]] - f(n) = 22 + 7 = 29
[[0,7,4][5,2,6][3,1,8]] - f(n) = 22 + 7 = 29
[[7,2,4][5,0,6][3,1,8]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,4][5,6,0][3,1,8]]
Generated Nodes:
[[7,2,0][5,6,4][3,1,8]] - f(n) = 22 + 7 = 29
[[7,2,4][5,0,6][3,1,8]] - Already visited Node!
[[7,2,4][5,6,8][3,1,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,6][4,2,1][8,5,3]]
Generated Nodes:
[[7,6,0][4,2,1][8,5,3]] - f(n) = 22 + 7 = 29
[[0,7,6][4,2,1][8,5,3]] - f(n) = 22 + 7 = 29
[[7,2,6][4,0,1][8,5,3]] - Already visited Node!
```

```
Node Chosen for Level 22 - [[7,2,6][0,4,1][8,5,3]]
Generated Nodes:
[[0,2,6][7,4,1][8,5,3]] - f(n) = 22 + 7 = 29
[[7,2,6][4,0,1][8,5,3]] - Already visited Node!
[[7,2,6][8,4,1][0,5,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 21 - [[8,7,2][3,0,5][4,1,6]]
Generated Nodes:
[[8,0,2][3,7,5][4,1,6]] - f(n) = 21 + 8 = 29
[[8,7,2][3,5,0][4,1,6]] - Already visited Node!
[[8,7,2][0,3,5][4,1,6]] - f(n) = 21 + 8 = 29
[[8,7,2][3,1,5][4,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 23 - [[2,5,4][7,0,6][1,8,3]]
Generated Nodes:
[[2,0,4][7,5,6][1,8,3]] - Already visited Node!
[[2,5,4][7,6,0][1,8,3]] - f(n) = 23 + 7 = 30
[[2,5,4][0,7,6][1,8,3]] - f(n) = 23 + 6 = 29
[[2,5,4][7,8,6][1,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[3,7,2][5,6,0][4,8,1]]
Generated Nodes:
[[3,7,0][5,6,2][4,8,1]] - f(n) = 22 + 7 = 29
[[3,7,2][5,0,6][4,8,1]] - Already visited Node!
[[3,7,2][5,6,1][4,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,7,2][5,8,6][4,0,1]]
Generated Nodes:
[[3,7,2][5,0,6][4,8,1]] - Already visited Node!
[[3,7,2][5,8,6][4,1,0]] - f(n) = 22 + 7 = 29
[[3,7,2][5,8,6][0,4,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 21 - [[5,1,2][3,8,4][0,7,6]]
Generated Nodes:
[[5,1,2][0,8,4][3,7,6]] - Already visited Node!
[[5,1,2][3,8,4][7,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][0,3,6][4,7,1]]
```

```
[[0,8,2][5,3,6][4,7,1]] - f(n) = 22 + 7 = 29
[[5,8,2][3,0,6][4,7,1]] - Already visited Node!
[[5,8,2][4,3,6][0,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][1,8,6][0,7,3]]
Generated Nodes:
[[5,2,4][0,8,6][1,7,3]] - f(n) = 23 + 6 = 29
[[5,2,4][1,8,6][7,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[4,7,2][5,0,6][1,8,3]]
Generated Nodes:
[[4,0,2][5,7,6][1,8,3]] - f(n) = 23 + 6 = 29
[[4,7,2][5,6,0][1,8,3]] - f(n) = 23 + 7 = 30
[[4,7,2][0,5,6][1,8,3]] - Already visited Node!
[[4,7,2][5,8,6][1,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[7,0,1][3,2,5][6,8,4]]
Generated Nodes:
[[7,1,0][3,2,5][6,8,4]] - Already visited Node!
[[0,7,1][3,2,5][6,8,4]] - f(n) = 22 + 7 = 29
[[7,2,1][3,0,5][6,8,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,1][3,8,5][6,0,4]]
Generated Nodes:
[[7,2,1][3,0,5][6,8,4]] - Already visited Node!
[[7,2,1][3,8,5][6,4,0]] - Already visited Node!
[[7,2,1][3,8,5][0,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][5,0,1][4,8,3]]
Generated Nodes:
[[7,0,6][5,2,1][4,8,3]] - f(n) = 23 + 7 = 30
[[7,2,6][5,1,0][4,8,3]] - f(n) = 23 + 6 = 29
[[7,2,6][0,5,1][4,8,3]] - Already visited Node!
[[7,2,6][5,8,1][4,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,7,2][4,0,6][8,5,1]]
Generated Nodes:
[[3,0,2][4,7,6][8,5,1]] - f(n) = 23 + 6 = 29
[[3,7,2][4,6,0][8,5,1]] - f(n) = 23 + 7 = 30
```

```
[[3,7,2][0,4,6][8,5,1]] - f(n) = 23 + 7 = 30
[[3,7,2][4,5,6][8,0,1]] - Already visited Node!
Node Chosen for Level 22 - [[1,7,2][5,6,0][8,4,3]]
Generated Nodes:
[[1,7,0][5,6,2][8,4,3]] - f(n) = 22 + 7 = 29
[[1,7,2][5,0,6][8,4,3]] - Already visited Node!
[[1,7,2][5,6,3][8,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[7,2,6][4,0,5][3,1,8]]
Generated Nodes:
[[7,0,6][4,2,5][3,1,8]] - f(n) = 23 + 7 = 30
[[7,2,6][4,5,0][3,1,8]] - Already visited Node!
[[7,2,6][0,4,5][3,1,8]] - f(n) = 23 + 7 = 30
[[7,2,6][4,1,5][3,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[7,0,3][1,2,5][8,6,4]]
Generated Nodes:
[[7,3,0][1,2,5][8,6,4]] - f(n) = 22 + 8 = 30
[[0,7,3][1,2,5][8,6,4]] - f(n) = 22 + 7 = 29
[[7,2,3][1,0,5][8,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,1,2][4,8,6][0,7,3]]
Generated Nodes:
[[5,1,2][0,8,6][4,7,3]] - f(n) = 23 + 7 = 30
[[5,1,2][4,8,6][7,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[0,1,2][8,7,4][3,5,6]]
Generated Nodes:
[[1,0,2][8,7,4][3,5,6]] - Already visited Node!
[[8,1,2][0,7,4][3,5,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,2][1,8,4][3,5,6]]
Generated Nodes:
[[7,0,2][1,8,4][3,5,6]] - f(n) = 21 + 8 = 29
[[1,7,2][0,8,4][3,5,6]] - Already visited Node!
Node Chosen for Level 22 - [[2,4,6][5,7,0][3,8,1]]
Generated Nodes:
```

```
[[2,4,0][5,7,6][3,8,1]] - Already visited Node!
[[2,4,6][5,0,7][3,8,1]] - f(n) = 22 + 7 = 29
[[2,4,6][5,7,1][3,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,7,4][5,6,0][3,8,1]]
Generated Nodes:
[[2,7,0][5,6,4][3,8,1]] - f(n) = 22 + 7 = 29
[[2,7,4][5,0,6][3,8,1]] - Already visited Node!
[[2,7,4][5,6,1][3,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,7,4][5,8,6][3,0,1]]
Generated Nodes:
[[2,7,4][5,0,6][3,8,1]] - Already visited Node!
[[2,7,4][5,8,6][3,1,0]] - Already visited Node!
[[2,7,4][5,8,6][0,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,4][3,2,6][8,7,1]]
Generated Nodes:
[[5,4,0][3,2,6][8,7,1]] - f(n) = 22 + 7 = 29
[[0,5,4][3,2,6][8,7,1]] - f(n) = 22 + 7 = 29
[[5,2,4][3,0,6][8,7,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,4][3,6,0][8,7,1]]
Generated Nodes:
[[5,2,0][3,6,4][8,7,1]] - f(n) = 22 + 7 = 29
[[5,2,4][3,0,6][8,7,1]] - Already visited Node!
[[5,2,4][3,6,1][8,7,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,4][3,7,0][8,1,6]]
Generated Nodes:
[[5,2,0][3,7,4][8,1,6]] - f(n) = 22 + 7 = 29
[[5,2,4][3,0,7][8,1,6]] - f(n) = 22 + 7 = 29
[[5,2,4][3,7,6][8,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[2,4,6][5,8,0][7,3,1]]
Generated Nodes:
[[2,4,0][5,8,6][7,3,1]] - Already visited Node!
[[2,4,6][5,0,8][7,3,1]] - f(n) = 22 + 7 = 29
[[2,4,6][5,8,1][7,3,0]] - f(n) = 22 + 7 = 29
```

```
Node Chosen for Level 22 - [[2,8,4][5,6,0][7,3,1]]
Generated Nodes:
[[2,8,0][5,6,4][7,3,1]] - f(n) = 22 + 7 = 29
[[2,8,4][5,0,6][7,3,1]] - Already visited Node!
[[2,8,4][5,6,1][7,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,4,6][8,2,0][7,3,1]]
Generated Nodes:
[[5,4,0][8,2,6][7,3,1]] - Already visited Node!
[[5,4,6][8,0,2][7,3,1]] - f(n) = 22 + 7 = 29
[[5,4,6][8,2,1][7,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,2][8,6,4][7,3,1]]
Generated Nodes:
[[5,2,0][8,6,4][7,3,1]] - Already visited Node!
[[0,5,2][8,6,4][7,3,1]] - f(n) = 22 + 7 = 29
[[5,6,2][8,0,4][7,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,4][7,2,6][1,3,8]]
Generated Nodes:
[[5,4,0][7,2,6][1,3,8]] - f(n) = 22 + 7 = 29
[[0,5,4][7,2,6][1,3,8]] - f(n) = 22 + 7 = 29
[[5,2,4][7,0,6][1,3,8]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,4][7,6,0][1,3,8]]
Generated Nodes:
[[5,2,0][7,6,4][1,3,8]] - f(n) = 22 + 7 = 29
[[5,2,4][7,0,6][1,3,8]] - Already visited Node!
[[5,2,4][7,6,8][1,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,2][4,6,3][1,0,8]]
Generated Nodes:
[[7,5,2][4,0,3][1,6,8]] - f(n) = 22 + 7 = 29
[[7,5,2][4,6,3][1,8,0]] - Already visited Node!
[[7,5,2][4,6,3][0,1,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,2][4,8,0][1,3,6]]
```

```
[[7,5,0][4,8,2][1,3,6]] - f(n) = 22 + 7 = 29
[[7,5,2][4,0,8][1,3,6]] - f(n) = 22 + 7 = 29
[[7,5,2][4,8,6][1,3,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][0,8,6][4,1,3]]
Generated Nodes:
[[0,5,2][7,8,6][4,1,3]] - f(n) = 22 + 7 = 29
[[7,5,2][8,0,6][4,1,3]] - Already visited Node!
[[7,5,2][4,8,6][0,1,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,6][4,5,3][1,0,8]]
Generated Nodes:
[[7,2,6][4,0,3][1,5,8]] - f(n) = 24 + 6 = 30
[[7,2,6][4,5,3][1,8,0]] - Already visited Node!
[[7,2,6][4,5,3][0,1,8]] - f(n) = 24 + 5 = 29
Node Chosen for Level 22 - [[2,0,4][7,3,6][1,5,8]]
Generated Nodes:
[[2,4,0][7,3,6][1,5,8]] - f(n) = 22 + 7 = 29
[[0,2,4][7,3,6][1,5,8]] - Already visited Node!
[[2,3,4][7,0,6][1,5,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 21 - [[3,7,2][1,0,5][8,6,4]]
Generated Nodes:
[[3,0,2][1,7,5][8,6,4]] - f(n) = 21 + 8 = 29
[[3,7,2][1,5,0][8,6,4]] - Already visited Node!
[[3,7,2][0,1,5][8,6,4]] - f(n) = 21 + 8 = 29
[[3,7,2][1,6,5][8,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[2,0,4][7,1,6][8,5,3]]
Generated Nodes:
[[2,4,0][7,1,6][8,5,3]] - f(n) = 22 + 7 = 29
[[0,2,4][7,1,6][8,5,3]] - Already visited Node!
[[2,1,4][7,0,6][8,5,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,7,2][8,5,0][3,1,6]]
Generated Nodes:
[[4,7,0][8,5,2][3,1,6]] - f(n) = 22 + 7 = 29
[[4,7,2][8,0,5][3,1,6]] - f(n) = 22 + 8 = 30
```

```
[[4,7,2][8,5,6][3,1,0]] - Already visited Node!
Node Chosen for Level 21 - [[0,1,7][5,4,2][8,3,6]]
Generated Nodes:
[[1,0,7][5,4,2][8,3,6]] - Already visited Node!
[[5,1,7][0,4,2][8,3,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[5,3,2][7,6,0][4,8,1]]
Generated Nodes:
[[5,3,0][7,6,2][4,8,1]] - f(n) = 22 + 7 = 29
[[5,3,2][7,0,6][4,8,1]] - Already visited Node!
[[5,3,2][7,6,1][4,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,3,2][7,8,6][4,0,1]]
Generated Nodes:
[[5,3,2][7,0,6][4,8,1]] - Already visited Node!
[[5,3,2][7,8,6][4,1,0]] - f(n) = 22 + 7 = 29
[[5,3,2][7,8,6][0,4,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,4][2,6,0][3,8,1]]
Generated Nodes:
[[7,5,0][2,6,4][3,8,1]] - f(n) = 22 + 7 = 29
[[7,5,4][2,0,6][3,8,1]] - Already visited Node!
[[7,5,4][2,6,1][3,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,4][2,8,6][3,0,1]]
Generated Nodes:
[[7,5,4][2,0,6][3,8,1]] - Already visited Node!
[[7,5,4][2,8,6][3,1,0]] - Already visited Node!
[[7,5,4][2,8,6][0,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,4][3,2,6][8,0,1]]
Generated Nodes:
[[7,5,4][3,0,6][8,2,1]] - f(n) = 22 + 7 = 29
[[7,5,4][3,2,6][8,1,0]] - f(n) = 22 + 7 = 29
[[7,5,4][3,2,6][0,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[2,0,6][7,5,1][8,3,4]]
Generated Nodes:
```

```
[[2,6,0][7,5,1][8,3,4]] - f(n) = 22 + 7 = 29
[[0,2,6][7,5,1][8,3,4]] - Already visited Node!
[[2,5,6][7,0,1][8,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 21 - [[8,7,2][3,0,5][6,4,1]]
Generated Nodes:
[[8,0,2][3,7,5][6,4,1]] - f(n) = 21 + 8 = 29
[[8,7,2][3,5,0][6,4,1]] - Already visited Node!
[[8,7,2][0,3,5][6,4,1]] - f(n) = 21 + 8 = 29
[[8,7,2][3,4,5][6,0,1]] - f(n) =
                                  21 + 8 = 29
Node Chosen for Level 22 - [[2,0,1][7,5,4][8,3,6]]
Generated Nodes:
[[2,1,0][7,5,4][8,3,6]] - f(n) = 22 + 7 = 29
[[0,2,1][7,5,4][8,3,6]] - Already visited Node!
[[2,5,1][7,0,4][8,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 21 - [[8,1,2][5,3,4][0,7,6]]
Generated Nodes:
[[8,1,2][0,3,4][5,7,6]] - f(n) = 21 + 8 = 29
[[8,1,2][5,3,4][7,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,2][1,0,8][6,5,4]]
Generated Nodes:
[[3,0,2][1,7,8][6,5,4]] - f(n) = 21 + 8 = 29
[[3,7,2][1,8,0][6,5,4]] - f(n) = 21 + 8 = 29
[[3,7,2][0,1,8][6,5,4]] - f(n) = 21 + 8 = 29
[[3,7,2][1,5,8][6,0,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,3,2][7,6,0][4,8,1]]
Generated Nodes:
[[5,3,0][7,6,2][4,8,1]] - f(n) = 22 + 7 = 29
[[5,3,2][7,0,6][4,8,1]] - Already visited Node!
[[5,3,2][7,6,1][4,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,3,2][7,8,6][4,0,1]]
Generated Nodes:
[[5,3,2][7,0,6][4,8,1]] - Already visited Node!
[[5,3,2][7,8,6][4,1,0]] - f(n) = 22 + 7 = 29
```

```
[[5,3,2][7,8,6][0,4,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,0,4][5,7,3][1,8,6]]
Generated Nodes:
[[2,4,0][5,7,3][1,8,6]] - f(n) = 22 + 7 = 29
[[0,2,4][5,7,3][1,8,6]] - Already visited Node!
[[2,7,4][5,0,3][1,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,4][1,7,3][8,0,6]]
Generated Nodes:
[[5,2,4][1,0,3][8,7,6]] - f(n) = 22 + 7 = 29
[[5,2,4][1,7,3][8,6,0]] - f(n) = 22 + 7 = 29
[[5,2,4][1,7,3][0,8,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,5,6][4,7,0][3,2,1]]
Generated Nodes:
[[8,5,0][4,7,6][3,2,1]] - Already visited Node!
[[8,5,6][4,0,7][3,2,1]] - f(n) = 22 + 7 = 29
[[8,5,6][4,7,1][3,2,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,8,5][0,7,6][3,2,1]]
Generated Nodes:
[[0,8,5][4,7,6][3,2,1]] - Already visited Node!
[[4,8,5][7,0,6][3,2,1]] - Already visited Node!
[[4,8,5][3,7,6][0,2,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,0,4][5,7,6][8,1,3]]
Generated Nodes:
[[2,4,0][5,7,6][8,1,3]] - f(n) = 22 + 7 = 29
[[0,2,4][5,7,6][8,1,3]] - Already visited Node!
[[2,7,4][5,0,6][8,1,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,4,2][7,6,0][1,8,3]]
Generated Nodes:
[[5,4,0][7,6,2][1,8,3]] - f(n) = 22 + 7 = 29
[[5,4,2][7,0,6][1,8,3]] - Already visited Node!
[[5,4,2][7,6,3][1,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,4,2][7,8,6][1,0,3]]
```

```
Generated Nodes:
```

```
[[5,4,2][7,0,6][1,8,3]] - Already visited Node! [[5,4,2][7,8,6][1,3,0]] - f(n) = 22 + 7 = 29 [[5,4,2][7,8,6][0,1,3]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[8,4,2][5,6,0][7,3,1]]

Generated Nodes:

```
[[8,4,0][5,6,2][7,3,1]] - f(n) = 22 + 7 = 29

[[8,4,2][5,0,6][7,3,1]] - Already visited Node!

[[8,4,2][5,6,1][7,3,0]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[3,7,2][6,5,1][8,0,4]]

Generated Nodes:

[[3,7,2][6,0,1][8,5,4]] - f(n) = 22 + 8 = 30

$$[[3,7,2][6,5,1][8,4,0]] - f(n) = 22 + 7 = 29$$

[[3,7,2][6,5,1][0,8,4]] - Already visited Node!

Node Chosen for Level 22 - [[3,0,4][5,2,7][1,8,6]]

Generated Nodes:

```
[[3,4,0][5,2,7][1,8,6]] - f(n) = 22 + 7 = 29

[[0,3,4][5,2,7][1,8,6]] - f(n) = 22 + 7 = 29

[[3,2,4][5,0,7][1,8,6]] - Already visited Node!
```

No. do Character for Lavel 22 [[2, 2, 4][5, 0, 7][4, 0, 6]]

Node Chosen for Level 22 - [[3,2,4][5,8,7][1,0,6]]

Generated Nodes:

[[3,2,4][5,0,7][1,8,6]] - Already visited Node!

$$[[3,2,4][5,8,7][1,6,0]] - f(n) = 22 + 7 = 29$$

$$[[3,2,4][5,8,7][0,1,6]] - f(n) = 22 + 7 = 29$$

Node Chosen for Level 22 - [[1,0,4][5,2,7][8,3,6]]

Generated Nodes:

$$[[1,4,0][5,2,7][8,3,6]] - f(n) = 22 + 7 = 29$$

 $[[0,1,4][5,2,7][8,3,6]] - f(n) = 22 + 8 = 30$
 $[[1,2,4][5,0,7][8,3,6]] - Already visited Node!$

Node Chosen for Level 22 - [[1,7,2][5,6,0][8,4,3]]

```
[[1,7,0][5,6,2][8,4,3]] - f(n) = 22 + 7 = 29
[[1,7,2][5,0,6][8,4,3]] - Already visited Node!
```

```
[[1,7,2][5,6,3][8,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,7,2][3,8,4][5,0,6]]
Generated Nodes:
[[1,7,2][3,0,4][5,8,6]] - Already visited Node!
[[1,7,2][3,8,4][5,6,0]] - f(n) = 22 + 7 = 29
[[1,7,2][3,8,4][0,5,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][0,1,6][4,3,8]]
Generated Nodes:
[[0,5,2][7,1,6][4,3,8]] - f(n) = 22 + 7 = 29
[[7,5,2][1,0,6][4,3,8]] - Already visited Node!
[[7,5,2][4,1,6][0,3,8]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,2][3,0,4][1,5,6]]
Generated Nodes:
[[8,0,2][3,7,4][1,5,6]] - f(n) = 21 + 8 = 29
[[8,7,2][3,4,0][1,5,6]] - f(n) = 21 + 8 = 29
[[8,7,2][0,3,4][1,5,6]] - f(n) = 21 + 8 = 29
[[8,7,2][3,5,4][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[6,7,2][5,0,1][8,3,4]]
Generated Nodes:
[[6,0,2][5,7,1][8,3,4]] - f(n) = 21 + 8 = 29
[[6,7,2][5,1,0][8,3,4]] - f(n) = 21 + 8 = 29
[[6,7,2][0,5,1][8,3,4]] - Already visited Node!
[[6,7,2][5,3,1][8,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[4,3,5][0,7,2][1,8,6]]
Generated Nodes:
[[0,3,5][4,7,2][1,8,6]] - Already visited Node!
[[4,3,5][7,0,2][1,8,6]] - Already visited Node!
[[4,3,5][1,7,2][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,5,2][4,6,0][3,7,1]]
Generated Nodes:
[[8,5,0][4,6,2][3,7,1]] - f(n) = 22 + 7 = 29
[[8,5,2][4,0,6][3,7,1]] - Already visited Node!
[[8,5,2][4,6,1][3,7,0]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[8,5,2][0,4,6][3,7,1]] Generated Nodes: [[0,5,2][8,4,6][3,7,1]] - f(n) = 22 + 7 = 29[[8,5,2][4,0,6][3,7,1]] - Already visited Node! [[8,5,2][3,4,6][0,7,1]] - f(n) = 22 + 7 = 29Node Chosen for Level 22 - [[8,5,2][0,7,6][4,3,1]] Generated Nodes: [[0,5,2][8,7,6][4,3,1]] - f(n) = 22 + 7 = 29[[8,5,2][7,0,6][4,3,1]] - f(n) = 22 + 7 = 29[[8,5,2][4,7,6][0,3,1]] - Already visited Node! Node Chosen for Level 22 - [[8,2,7][0,1,5][4,3,6]] Generated Nodes: [[0,2,7][8,1,5][4,3,6]] - f(n) = 22 + 7 = 29[[8,2,7][1,0,5][4,3,6]] - f(n) = 22 + 7 = 29[[8,2,7][4,1,5][0,3,6]] - Already visited Node! Node Chosen for Level 22 - [[8,0,4][5,2,1][7,3,6]] Generated Nodes: [[8,4,0][5,2,1][7,3,6]] - f(n) = 22 + 7 = 29[[0,8,4][5,2,1][7,3,6]] - f(n) = 22 + 7 = 29[[8,2,4][5,0,1][7,3,6]] - Already visited Node! Node Chosen for Level 22 - [[5,8,2][1,6,0][7,4,3]] Generated Nodes: [[5,8,0][1,6,2][7,4,3]] - f(n) = 22 + 7 = 29[[5,8,2][1,0,6][7,4,3]] - Already visited Node! [[5,8,2][1,6,3][7,4,0]] - f(n) = 22 + 7 = 29Node Chosen for Level 22 - [[8,0,4][5,2,6][3,7,1]] Generated Nodes: [[8,4,0][5,2,6][3,7,1]] - f(n) = 22 + 7 = 29[[0,8,4][5,2,6][3,7,1]] - f(n) = 22 + 7 = 29

[[8,2,4][5,0,6][3,7,1]] - Already visited Node!

Node Chosen for Level 22 - [[8,2,4][5,6,0][3,7,1]]

```
[[8,2,0][5,6,4][3,7,1]] - f(n) = 22 + 7 = 29
[[8,2,4][5,0,6][3,7,1]] - Already visited Node!
[[8,2,4][5,6,1][3,7,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[1,7,2][8,0,6][4,5,3]]
Generated Nodes:
[[1,0,2][8,7,6][4,5,3]] - f(n) =
                                   23 + 6 = 29
                                   23 + 7 = 30
[[1,7,2][8,6,0][4,5,3]] - f(n) =
[[1,7,2][0,8,6][4,5,3]] - f(n) = 23 + 6 = 29
[[1,7,2][8,5,6][4,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[1,0,4][5,2,3][7,8,6]]
Generated Nodes:
[[1,4,0][5,2,3][7,8,6]] - f(n) = 24 + 5 = 29
[[0,1,4][5,2,3][7,8,6]] - f(n) = 24 + 6 = 30
[[1,2,4][5,0,3][7,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[1,2,4][5,8,3][7,0,6]]
Generated Nodes:
[[1,2,4][5,0,3][7,8,6]] - Already visited Node!
[[1,2,4][5,8,3][7,6,0]] - f(n) = 24 + 5 = 29
[[1,2,4][5,8,3][0,7,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[7,2,3][1,0,4][8,5,6]]
Generated Nodes:
[[7,0,3][1,2,4][8,5,6]] - f(n) = 23 + 7 = 30
[[7,2,3][1,4,0][8,5,6]] - f(n) = 23 + 6 = 29
[[7,2,3][0,1,4][8,5,6]] - f(n) = 23 + 6 = 29
[[7,2,3][1,5,4][8,0,6]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,7][0,5,6][4,3,1]]
Generated Nodes:
[[0,2,7][8,5,6][4,3,1]] - f(n) = 24 + 5 = 29
[[8,2,7][5,0,6][4,3,1]] - f(n) = 24 + 6 = 30
[[8,2,7][4,5,6][0,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[4,5,2][0,1,6][7,8,3]]
Generated Nodes:
[[0,5,2][4,1,6][7,8,3]] - Already visited Node!
[[4,5,2][1,0,6][7,8,3]] - f(n) = 24 + 5 = 29
```

```
[[4,5,2][7,1,6][0,8,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 22 - [[4,7,2][0,5,3][8,1,6]]
Generated Nodes:
[[0,7,2][4,5,3][8,1,6]] - Already visited Node!
[[4,7,2][5,0,3][8,1,6]] - f(n) = 22 + 8 = 30
[[4,7,2][8,5,3][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,7,2][0,5,1][8,6,3]]
Generated Nodes:
[[0,7,2][4,5,1][8,6,3]] - Already visited Node!
[[4,7,2][5,0,1][8,6,3]] - f(n) = 22 + 8 = 30
[[4,7,2][8,5,1][0,6,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,4,3][7,8,2][1,0,6]]
Generated Nodes:
[[5,4,3][7,0,2][1,8,6]] - Already visited Node!
[[5,4,3][7,8,2][1,6,0]] - f(n) = 22 + 7 = 29
[[5,4,3][7,8,2][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,8,2][0,5,7][3,1,6]]
Generated Nodes:
[[0,8,2][4,5,7][3,1,6]] - Already visited Node!
[[4,8,2][5,0,7][3,1,6]] - f(n) = 22 + 8 = 30
[[4,8,2][3,5,7][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,0,4][8,5,7][3,1,6]]
Generated Nodes:
[[2,4,0][8,5,7][3,1,6]] - f(n) = 22 + 7 = 29
[[0,2,4][8,5,7][3,1,6]] - Already visited Node!
[[2,5,4][8,0,7][3,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[5,2,4][1,8,6][0,7,3]]
Generated Nodes:
[[5,2,4][0,8,6][1,7,3]] - f(n) = 23 + 6 = 29
[[5,2,4][1,8,6][7,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[0,7,2][1,4,6][5,8,3]]
Generated Nodes:
```

```
[[7,0,2][1,4,6][5,8,3]] - f(n) = 23 + 6 = 29
[[1,7,2][0,4,6][5,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,4][5,1,6][0,7,3]]
Generated Nodes:
[[8,2,4][0,1,6][5,7,3]] - f(n) = 23 + 6 = 29
[[8,2,4][5,1,6][7,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][1,8,6][0,7,3]]
Generated Nodes:
[[5,2,4][0,8,6][1,7,3]] - f(n) = 23 + 6 = 29
[[5,2,4][1,8,6][7,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[1,4,2][5,6,0][7,8,3]]
Generated Nodes:
[[1,4,0][5,6,2][7,8,3]] - f(n) = 24 + 5 = 29
[[1,4,2][5,0,6][7,8,3]] - Already visited Node!
[[1,4,2][5,6,3][7,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,4,2][5,8,6][7,0,3]]
Generated Nodes:
[[1,4,2][5,0,6][7,8,3]] - Already visited Node!
[[1,4,2][5,8,6][7,3,0]] - f(n) = 24 + 5 = 29
[[1,4,2][5,8,6][0,7,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[7,2,1][4,0,5][8,6,3]]
Generated Nodes:
[[7,0,1][4,2,5][8,6,3]] - f(n) = 23 + 7 = 30
[[7,2,1][4,5,0][8,6,3]] - Already visited Node!
[[7,2,1][0,4,5][8,6,3]] - f(n) = 23 + 7 = 30
[[7,2,1][4,6,5][8,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[4,7,8][0,5,2][3,1,6]]
Generated Nodes:
[[0,7,8][4,5,2][3,1,6]] - Already visited Node!
[[4,7,8][5,0,2][3,1,6]] - f(n) = 22 + 8 = 30
[[4,7,8][3,5,2][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 25 - [[7,2,3][4,0,6][8,5,1]]
```

```
Generated Nodes:
```

```
[[7,0,3][4,2,6][8,5,1]] - f(n) = 25 + 5 = 30
[[7,2,3][4,6,0][8,5,1]] - f(n) = 25 + 5 = 30
[[7,2,3][0,4,6][8,5,1]] - f(n) =
                                 25 + 5 = 30
[[7,2,3][4,5,6][8,0,1]] - Already visited Node!
```

Node Chosen for Level 22 - [[4,2,6][5,7,0][8,3,1]]

Generated Nodes:

[[4,2,0][5,7,6][8,3,1]] - Already visited Node!

$$[[4,2,6][5,0,7][8,3,1]] - f(n) = 22 + 7 = 29$$

[[4,2,6][5,7,1][8,3,0]] - f(n) = 22 + 7 = 29

Node Chosen for Level 22 - [[7,0,2][8,1,6][3,5,4]]

Generated Nodes:

```
[[7,2,0][8,1,6][3,5,4]] - Already visited Node!
[[0,7,2][8,1,6][3,5,4]] - f(n) = 22 + 7 = 29
[[7,1,2][8,0,6][3,5,4]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[8,2,6][3,7,0][4,5,1]]

Generated Nodes:

[[8,2,0][3,7,6][4,5,1]] - Already visited Node!

$$[[8,2,6][3,0,7][4,5,1]] - f(n) = 22 + 7 = 29$$

[[8,2,6][3,7,1][4,5,0]] - f(n) = 22 + 7 = 29

Node Chosen for Level 23 - [[2,8,4][7,5,6][0,3,1]]

Generated Nodes:

```
[[2,8,4][0,5,6][7,3,1]] - Already visited Node!
[[2,8,4][7,5,6][3,0,1]] - f(n) = 23 + 6 = 29
```

Node Chosen for Level 22 - [[7,5,2][0,1,3][4,8,6]]

Generated Nodes:

[[0,5,2][7,1,3][4,8,6]] - f(n) = 22 + 7 = 29[[7,5,2][1,0,3][4,8,6]] - f(n) = 22 + 7 = 29[[7,5,2][4,1,3][0,8,6]] - Already visited Node!

Node Chosen for Level 22 - [[5,0,6][7,2,1][3,8,4]]

Generated Nodes:

[[5,6,0][7,2,1][3,8,4]] - f(n) = 22 + 7 = 29

```
[[0,5,6][7,2,1][3,8,4]] - f(n) = 22 + 7 = 29
[[5,2,6][7,0,1][3,8,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,2][8,4,6][3,1,5]]
Generated Nodes:
[[7,2,0][8,4,6][3,1,5]] - Already visited Node!
[[0,7,2][8,4,6][3,1,5]] - f(n) = 22 + 7 = 29
[[7,4,2][8,0,6][3,1,5]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,2][4,6,0][5,3,1]]
Generated Nodes:
[[8,7,0][4,6,2][5,3,1]] - f(n) = 22 + 7 = 29
[[8,7,2][4,0,6][5,3,1]] - Already visited Node!
[[8,7,2][4,6,1][5,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,1][8,2,6][3,4,5]]
Generated Nodes:
[[7,1,0][8,2,6][3,4,5]] - f(n) = 22 + 7 = 29
[[0,7,1][8,2,6][3,4,5]] - f(n) = 22 + 7 = 29
[[7,2,1][8,0,6][3,4,5]] - Already visited Node!
Node Chosen for Level 22 - [[7,6,5][0,3,2][4,8,1]]
Generated Nodes:
[[0,6,5][7,3,2][4,8,1]] - f(n) = 22 + 7 = 29
[[7,6,5][3,0,2][4,8,1]] - Already visited Node!
[[7,6,5][4,3,2][0,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][7,3,0][1,4,8]]
Generated Nodes:
[[5,2,0][7,3,6][1,4,8]] - Already visited Node!
[[5,2,6][7,0,3][1,4,8]] - f(n) = 22 + 7 = 29
[[5,2,6][7,3,8][1,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,2][1,3,0][4,8,6]]
Generated Nodes:
[[7,5,0][1,3,2][4,8,6]] - f(n) = 22 + 7 = 29
[[7,5,2][1,0,3][4,8,6]] - f(n) =
                                  22 + 7 = 29
[[7,5,2][1,3,6][4,8,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][7,4,0][3,1,8]]
```

```
Generated Nodes:
[[5,2,0][7,4,6][3,1,8]] - Already visited Node!
[[5,2,6][7,0,4][3,1,8]] - f(n) = 22 + 7 = 29
[[5,2,6][7,4,8][3,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[4,2,6][5,7,0][8,3,1]]
Generated Nodes:
[[4,2,0][5,7,6][8,3,1]] - Already visited Node!
[[4,2,6][5,0,7][8,3,1]] - f(n) = 22 + 7 = 29
[[4,2,6][5,7,1][8,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,4,5][3,6,0][2,8,1]]
Generated Nodes:
[[7,4,0][3,6,5][2,8,1]] - f(n) = 22 + 7 = 29
[[7,4,5][3,0,6][2,8,1]] - Already visited Node!
[[7,4,5][3,6,1][2,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,2,5][7,6,0][8,3,1]]
Generated Nodes:
[[4,2,0][7,6,5][8,3,1]] - f(n) = 22 + 7 = 29
[[4,2,5][7,0,6][8,3,1]] - Already visited Node!
[[4,2,5][7,6,1][8,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,6][7,1,0][8,4,3]]
Generated Nodes:
[[5,2,0][7,1,6][8,4,3]] - Already visited Node!
[[5,2,6][7,0,1][8,4,3]] - Already visited Node!
[[5,2,6][7,1,3][8,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,1][7,2,4][3,8,6]]
Generated Nodes:
[[5,1,0][7,2,4][3,8,6]] - f(n) = 22 + 7 = 29
[[0,5,1][7,2,4][3,8,6]] - f(n) = 22 + 7 = 29
[[5,2,1][7,0,4][3,8,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][7,1,0][8,4,3]]
Generated Nodes:
```

[[5,2,0][7,1,6][8,4,3]] - Already visited Node!

```
[[5,2,6][7,0,1][8,4,3]] - Already visited Node!
[[5,2,6][7,1,3][8,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[8,4,2][7,5,6][0,3,1]]
Generated Nodes:
[[8,4,2][0,5,6][7,3,1]] - Already visited Node!
[[8,4,2][7,5,6][3,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,2,4][1,5,7][8,3,6]]
Generated Nodes:
[[2,0,4][1,5,7][8,3,6]] - f(n) = 23 + 7 = 30
[[1,2,4][0,5,7][8,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,4][7,5,1][0,3,6]]
Generated Nodes:
[[8,2,4][0,5,1][7,3,6]] - Already visited Node!
[[8,2,4][7,5,1][3,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[1,3,2][5,4,6][7,0,8]]
Generated Nodes:
[[1,3,2][5,0,6][7,4,8]] - f(n) = 24 + 5 = 29
[[1,3,2][5,4,6][7,8,0]] - Already visited Node!
[[1,3,2][5,4,6][0,7,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[4,2,6][5,3,0][7,8,1]]
Generated Nodes:
[[4,2,0][5,3,6][7,8,1]] - Already visited Node!
[[4,2,6][5,0,3][7,8,1]] - f(n) = 24 + 5 = 29
[[4,2,6][5,3,1][7,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,2,6][3,4,0][7,8,1]]
Generated Nodes:
[[5,2,0][3,4,6][7,8,1]] - Already visited Node!
[[5,2,6][3,0,4][7,8,1]] - Already visited Node!
[[5,2,6][3,4,1][7,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,2,4][3,1,6][7,0,8]]
Generated Nodes:
```

```
[[5,2,4][3,0,6][7,1,8]] - Already visited Node!
[[5,2,4][3,1,6][7,8,0]] - Already visited Node!
[[5,2,4][3,1,6][0,7,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[0,2,4][1,5,3][7,8,6]]
Generated Nodes:
[[2,0,4][1,5,3][7,8,6]] - f(n) = 25 + 5 = 30
[[1,2,4][0,5,3][7,8,6]] - Already visited Node!
Node Chosen for Level 25 - [[1,2,4][7,5,3][0,8,6]]
Generated Nodes:
[[1,2,4][0,5,3][7,8,6]] - Already visited Node!
[[1,2,4][7,5,3][8,0,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 22 - [[4,5,2][7,6,0][3,8,1]]
Generated Nodes:
[[4,5,0][7,6,2][3,8,1]] - f(n) = 22 + 7 = 29
[[4,5,2][7,0,6][3,8,1]] - Already visited Node!
[[4,5,2][7,6,1][3,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,1][7,2,6][8,3,4]]
Generated Nodes:
[[5,1,0][7,2,6][8,3,4]] - f(n) = 22 + 7 = 29
[[0,5,1][7,2,6][8,3,4]] - f(n) = 22 + 7 = 29
[[5,2,1][7,0,6][8,3,4]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][3,1,6][7,0,8]]
Generated Nodes:
[[5,2,4][3,0,6][7,1,8]] - Already visited Node!
[[5,2,4][3,1,6][7,8,0]] - Already visited Node!
[[5,2,4][3,1,6][0,7,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,7,2][4,6,0][5,8,3]]
Generated Nodes:
[[1,7,0][4,6,2][5,8,3]] - f(n) = 24 + 5 = 29
[[1,7,2][4,0,6][5,8,3]] - Already visited Node!
[[1,7,2][4,6,3][5,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,7,2][4,8,6][5,0,3]]
```

```
Generated Nodes:
[[1,7,2][4,0,6][5,8,3]] - Already visited Node!
[[1,7,2][4,8,6][5,3,0]] - f(n) = 24 + 5 = 29
[[1,7,2][4,8,6][0,5,3]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,7,5][0,2,6][4,8,3]]
Generated Nodes:
[[0,7,5][1,2,6][4,8,3]] - f(n) = 24 + 6 = 30
[[1,7,5][2,0,6][4,8,3]] - f(n) = 24 + 5 = 29
[[1,7,5][4,2,6][0,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[0,4,2][1,5,6][7,8,3]]
Generated Nodes:
[[4,0,2][1,5,6][7,8,3]] - f(n) = 25 + 4 = 29
[[1,4,2][0,5,6][7,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,4,2][7,5,6][0,8,3]]
Generated Nodes:
[[1,4,2][0,5,6][7,8,3]] - Already visited Node!
[[1,4,2][7,5,6][8,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 26 - [[7,2,3][0,5,6][4,8,1]]
Generated Nodes:
[[0,2,3][7,5,6][4,8,1]] - f(n) = 26 + 3 = 29
[[7,2,3][5,0,6][4,8,1]] - f(n) = 26 + 4 = 30
[[7,2,3][4,5,6][0,8,1]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,6][4,5,0][3,7,1]]
Generated Nodes:
[[8,2,0][4,5,6][3,7,1]] - Already visited Node!
[[8,2,6][4,0,5][3,7,1]] - f(n) = 24 + 6 = 30
[[8,2,6][4,5,1][3,7,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,0,6][4,2,1][7,8,3]]
Generated Nodes:
[[5,6,0][4,2,1][7,8,3]] - f(n) = 24 + 5 = 29
[[0,5,6][4,2,1][7,8,3]] - f(n) = 24 + 5 = 29
[[5,2,6][4,0,1][7,8,3]] - Already visited Node!
```

```
Node Chosen for Level 24 - [[5,2,6][4,8,1][7,0,3]]
Generated Nodes:
[[5,2,6][4,0,1][7,8,3]] - Already visited Node!
[[5,2,6][4,8,1][7,3,0]] - Already visited Node!
[[5,2,6][4,8,1][0,7,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[4,2,6][7,5,0][3,8,1]]
Generated Nodes:
[[4,2,0][7,5,6][3,8,1]] - Already visited Node!
[[4,2,6][7,0,5][3,8,1]] - f(n) = 24 + 6 = 30
[[4,2,6][7,5,1][3,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 21 - [[4,7,0][5,6,2][8,3,1]]
Generated Nodes:
[[4,0,7][5,6,2][8,3,1]] - f(n) = 21 + 8 = 29
[[4,7,2][5,6,0][8,3,1]] - Already visited Node!
Node Chosen for Level 21 - [[4,7,2][5,6,1][8,3,0]]
Generated Nodes:
[[4,7,2][5,6,0][8,3,1]] - Already visited Node!
[[4,7,2][5,6,1][8,0,3]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,6,0][8,2,1][3,5,4]]
Generated Nodes:
[[7,0,6][8,2,1][3,5,4]] - Already visited Node!
[[7,6,1][8,2,0][3,5,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,6][8,2,1][3,5,4]]
Generated Nodes:
[[7,0,6][8,2,1][3,5,4]] - Already visited Node!
[[8,7,6][0,2,1][3,5,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,0][3,6,2][4,5,1]]
Generated Nodes:
[[8,0,7][3,6,2][4,5,1]] - f(n) = 21 + 8 = 29
[[8,7,2][3,6,0][4,5,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,2][3,6,1][4,5,0]]
```

```
Generated Nodes:
[[8,7,2][3,6,0][4,5,1]] - Already visited Node!
[[8,7,2][3,6,1][4,0,5]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,1,0][8,2,4][3,5,6]]
Generated Nodes:
[[7,0,1][8,2,4][3,5,6]] - Already visited Node!
[[7,1,4][8,2,0][3,5,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,1][8,2,4][3,5,6]]
Generated Nodes:
[[7,0,1][8,2,4][3,5,6]] - Already visited Node!
[[8,7,1][0,2,4][3,5,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 23 - [[7,4,0][5,2,6][1,8,3]]
Generated Nodes:
[[7,0,4][5,2,6][1,8,3]] - Already visited Node!
[[7,4,6][5,2,0][1,8,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,4][5,2,6][1,8,3]]
Generated Nodes:
[[7,0,4][5,2,6][1,8,3]] - Already visited Node!
[[5,7,4][0,2,6][1,8,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,0][5,6,4][1,8,3]]
Generated Nodes:
[[7,0,2][5,6,4][1,8,3]] - f(n) = 23 + 7 = 30
[[7,2,4][5,6,0][1,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,4][5,6,3][1,8,0]]
Generated Nodes:
[[7,2,4][5,6,0][1,8,3]] - Already visited Node!
[[7,2,4][5,6,3][1,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,4][5,8,6][1,3,0]]
Generated Nodes:
```

```
[[7,2,4][5,8,0][1,3,6]] - f(n) = 23 + 7 = 30
[[7,2,4][5,8,6][1,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,4][5,8,6][0,1,3]]
Generated Nodes:
[[7,2,4][0,8,6][5,1,3]] - f(n) = 23 + 6 = 29
[[7,2,4][5,8,6][1,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,8][3,2,5][1,6,4]]
Generated Nodes:
[[7,0,8][3,2,5][1,6,4]] - Already visited Node!
[[3,7,8][0,2,5][1,6,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[7,2,6][0,3,5][1,4,8]]
Generated Nodes:
[[0,2,6][7,3,5][1,4,8]] - f(n) = 22 + 7 = 29
[[7,2,6][3,0,5][1,4,8]] - Already visited Node!
[[7,2,6][1,3,5][0,4,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,6][3,4,5][1,0,8]]
Generated Nodes:
[[7,2,6][3,0,5][1,4,8]] - Already visited Node!
[[7,2,6][3,4,5][1,8,0]] - f(n) = 22 + 6 = 28
[[7,2,6][3,4,5][0,1,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,6][0,1,5][8,4,3]]
Generated Nodes:
[[0,2,6][7,1,5][8,4,3]] - f(n) = 22 + 7 = 29
[[7,2,6][1,0,5][8,4,3]] - Already visited Node!
[[7,2,6][8,1,5][0,4,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,6][1,4,5][8,0,3]]
Generated Nodes:
[[7,2,6][1,0,5][8,4,3]] - Already visited Node!
[[7,2,6][1,4,5][8,3,0]] - f(n) = 22 + 7 = 29
[[7,2,6][1,4,5][0,8,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 21 - [[0,5,2][7,4,3][8,1,6]]
Generated Nodes:
```

```
[[5,0,2][7,4,3][8,1,6]] - f(n) = 21 + 8 = 29
[[7,5,2][0,4,3][8,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][8,4,3][0,1,6]]
Generated Nodes:
[[7,5,2][0,4,3][8,1,6]] - Already visited Node!
[[7,5,2][8,4,3][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,6,0][7,2,8][3,4,1]]
Generated Nodes:
[[5,0,6][7,2,8][3,4,1]] - Already visited Node!
[[5,6,8][7,2,0][3,4,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,6][7,2,8][3,4,1]]
Generated Nodes:
[[5,0,6][7,2,8][3,4,1]] - Already visited Node!
[[7,5,6][0,2,8][3,4,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,2][3,0,1][4,6,8]]
Generated Nodes:
[[7,0,2][3,5,1][4,6,8]] - f(n) = 21 + 7 = 28
[[7,5,2][3,1,0][4,6,8]] - f(n) = 21 + 8 = 29
[[7,5,2][0,3,1][4,6,8]] - f(n) = 21 + 8 = 29
[[7,5,2][3,6,1][4,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][3,6,1][0,4,8]]
Generated Nodes:
[[7,5,2][0,6,1][3,4,8]] - f(n) = 21 + 8 = 29
[[7,5,2][3,6,1][4,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[5,6,0][7,2,4][8,3,1]]
Generated Nodes:
[[5,0,6][7,2,4][8,3,1]] - Already visited Node!
[[5,6,4][7,2,0][8,3,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,6][7,2,4][8,3,1]]
Generated Nodes:
```

```
[[5,0,6][7,2,4][8,3,1]] - Already visited Node!
[[7,5,6][0,2,4][8,3,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 23 - [[7,2,6][3,5,1][0,4,8]]
Generated Nodes:
[[7,2,6][0,5,1][3,4,8]] - f(n) = 23 + 6 = 29
[[7,2,6][3,5,1][4,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[2,6,0][7,8,5][3,4,1]]
Generated Nodes:
[[2,0,6][7,8,5][3,4,1]] - Already visited Node!
[[2,6,5][7,8,0][3,4,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[2,8,6][7,0,5][3,4,1]]
Generated Nodes:
[[2,0,6][7,8,5][3,4,1]] - Already visited Node!
[[2,8,6][7,5,0][3,4,1]] - f(n) = 21 + 7 = 28
[[2,8,6][0,7,5][3,4,1]] - f(n) = 21 + 8 = 29
[[2,8,6][7,4,5][3,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[2,1,0][7,8,5][3,6,4]]
Generated Nodes:
[[2,0,1][7,8,5][3,6,4]] - Already visited Node!
[[2,1,5][7,8,0][3,6,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[2,8,1][7,0,5][3,6,4]]
Generated Nodes:
[[2,0,1][7,8,5][3,6,4]] - Already visited Node!
[[2,8,1][7,5,0][3,6,4]] - f(n) = 21 + 7 = 28
[[2,8,1][0,7,5][3,6,4]] - f(n) = 21 + 8 = 29
[[2,8,1][7,6,5][3,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[2,4,0][7,1,5][8,3,6]]
Generated Nodes:
[[2,0,4][7,1,5][8,3,6]] - Already visited Node!
[[2,4,5][7,1,0][8,3,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[2,1,4][7,0,5][8,3,6]]
Generated Nodes:
```

```
[[2,0,4][7,1,5][8,3,6]] - Already visited Node!
[[2,1,4][7,5,0][8,3,6]] - f(n) = 21 + 7 = 28
[[2,1,4][0,7,5][8,3,6]] - f(n) = 21 + 8 = 29
[[2,1,4][7,3,5][8,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[4,0,2][8,7,6][3,5,1]]
Generated Nodes:
[[4,2,0][8,7,6][3,5,1]] - f(n) = 22 + 6 = 28
[[0,4,2][8,7,6][3,5,1]] - f(n) = 22 + 7 = 29
[[4,7,2][8,0,6][3,5,1]] - Already visited Node!
Node Chosen for Level 22 - [[4,7,2][0,8,6][3,5,1]]
Generated Nodes:
[[0,7,2][4,8,6][3,5,1]] - f(n) = 22 + 6 = 28
[[4,7,2][8,0,6][3,5,1]] - Already visited Node!
[[4,7,2][3,8,6][0,5,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 21 - [[4,7,5][6,0,2][8,3,1]]
Generated Nodes:
[[4,0,5][6,7,2][8,3,1]] - f(n) = 21 + 8 = 29
[[4,7,5][6,2,0][8,3,1]] - f(n) = 21 + 8 = 29
[[4,7,5][0,6,2][8,3,1]] - Already visited Node!
[[4,7,5][6,3,2][8,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,7,5][8,6,2][0,3,1]]
Generated Nodes:
[[4,7,5][0,6,2][8,3,1]] - Already visited Node!
[[4,7,5][8,6,2][3,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,6,5][7,4,2][8,3,1]]
Generated Nodes:
[[6,0,5][7,4,2][8,3,1]] - f(n) = 21 + 8 = 29
[[7,6,5][0,4,2][8,3,1]] - Already visited Node!
Node Chosen for Level 21 - [[0,5,2][7,4,1][8,6,3]]
Generated Nodes:
[[5,0,2][7,4,1][8,6,3]] - f(n) = 21 + 8 = 29
[[7,5,2][0,4,1][8,6,3]] - Already visited Node!
```

```
Node Chosen for Level 21 - [[7,5,2][8,4,1][0,6,3]]
Generated Nodes:
[[7,5,2][0,4,1][8,6,3]] - Already visited Node!
[[7,5,2][8,4,1][6,0,3]] - f(n) = 21 + 8 = 29
Node Chosen for Level 23 - [[2,4,0][7,5,6][3,1,8]]
Generated Nodes:
[[2,0,4][7,5,6][3,1,8]] - Already visited Node!
[[2,4,6][7,5,0][3,1,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[7,2,6][5,1,0][8,3,4]]
Generated Nodes:
[[7,2,0][5,1,6][8,3,4]] - f(n) = 22 + 6 = 28
[[7,2,6][5,0,1][8,3,4]] - Already visited Node!
[[7,2,6][5,1,4][8,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,6][5,3,1][8,0,4]]
Generated Nodes:
[[7,2,6][5,0,1][8,3,4]] - Already visited Node!
[[7,2,6][5,3,1][8,4,0]] - f(n) = 22 + 7 = 29
[[7,2,6][5,3,1][0,8,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 21 - [[5,4,0][7,3,2][8,1,6]]
Generated Nodes:
[[5,0,4][7,3,2][8,1,6]] - f(n) = 21 + 8 = 29
[[5,4,2][7,3,0][8,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,2][7,0,3][8,1,6]]
Generated Nodes:
[[5,0,2][7,4,3][8,1,6]] - f(n) = 21 + 8 = 29
[[5,4,2][7,3,0][8,1,6]] - Already visited Node!
[[5,4,2][0,7,3][8,1,6]] - f(n) = 21 + 8 = 29
[[5,4,2][7,1,3][8,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,4,0][3,2,8][1,7,6]]
Generated Nodes:
[[5,0,4][3,2,8][1,7,6]] - Already visited Node!
[[5,4,8][3,2,0][1,7,6]] - f(n) = 21 + 8 = 29
```

```
Node Chosen for Level 21 - [[0,5,4][3,2,8][1,7,6]]
Generated Nodes:
[[5,0,4][3,2,8][1,7,6]] - Already visited Node!
[[3,5,4][0,2,8][1,7,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,2][7,1,4][3,6,8]]
Generated Nodes:
[[5,0,2][7,1,4][3,6,8]] - Already visited Node!
[[7,5,2][0,1,4][3,6,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,1,2][7,0,4][3,6,8]]
Generated Nodes:
[[5,0,2][7,1,4][3,6,8]] - Already visited Node!
[[5,1,2][7,4,0][3,6,8]] - f(n) = 21 + 8 = 29
[[5,1,2][0,7,4][3,6,8]] - f(n) = 21 + 8 = 29
[[5,1,2][7,6,4][3,0,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,4,0][7,2,1][3,6,8]]
Generated Nodes:
[[5,0,4][7,2,1][3,6,8]] - Already visited Node!
[[5,4,1][7,2,0][3,6,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,4][7,2,1][3,6,8]]
Generated Nodes:
[[5,0,4][7,2,1][3,6,8]] - Already visited Node!
[[7,5,4][0,2,1][3,6,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[3,7,5][1,0,2][8,4,6]]
Generated Nodes:
[[3,0,5][1,7,2][8,4,6]] - f(n) = 21 + 8 = 29
[[3,7,5][1,2,0][8,4,6]] - f(n) =
                                  21 + 8 = 29
[[3,7,5][0,1,2][8,4,6]] - f(n) =
                                  21 + 8 = 29
[[3,7,5][1,4,2][8,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,5][1,4,2][8,6,0]]
Generated Nodes:
```

[[3,7,5][1,4,0][8,6,2]] - f(n) = 21 + 8 = 29

```
[[3,7,5][1,4,2][8,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,2][1,0,4][8,7,6]]
Generated Nodes:
[[5,0,2][1,3,4][8,7,6]] - f(n) = 21 + 8 = 29
[[5,3,2][1,4,0][8,7,6]] - f(n) =
                                  21 + 8 = 29
[[5,3,2][0,1,4][8,7,6]] - f(n) = 21 + 8 = 29
[[5,3,2][1,7,4][8,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,2][1,7,4][8,6,0]]
Generated Nodes:
[[5,3,2][1,7,0][8,6,4]] - f(n) = 21 + 8 = 29
[[5,3,2][1,7,4][8,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,1][5,4,0][8,3,6]]
Generated Nodes:
[[7,2,0][5,4,1][8,3,6]] - f(n) = 22 + 7 = 29
[[7,2,1][5,0,4][8,3,6]] - Already visited Node!
[[7,2,1][5,4,6][8,3,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,1][5,3,4][8,0,6]]
Generated Nodes:
[[7,2,1][5,0,4][8,3,6]] - Already visited Node!
[[7,2,1][5,3,4][8,6,0]] - f(n) = 22 + 7 = 29
[[7,2,1][5,3,4][0,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 21 - [[0,5,2][8,4,7][3,1,6]]
Generated Nodes:
[[5,0,2][8,4,7][3,1,6]] - f(n) = 21 + 8 = 29
[[8,5,2][0,4,7][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,5,2][3,4,7][0,1,6]]
Generated Nodes:
[[8,5,2][0,4,7][3,1,6]] - Already visited Node!
[[8,5,2][3,4,7][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,8,7][2,0,5][3,1,6]]
Generated Nodes:
```

```
[[4,0,7][2,8,5][3,1,6]] - f(n) = 21 + 8 = 29
[[4,8,7][2,5,0][3,1,6]] - f(n) = 21 + 7 = 28
[[4,8,7][0,2,5][3,1,6]] - Already visited Node!
[[4,8,7][2,1,5][3,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,8,7][3,2,5][0,1,6]]
Generated Nodes:
[[4,8,7][0,2,5][3,1,6]] - Already visited Node!
[[4,8,7][3,2,5][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,5][3,4,1][0,6,2]]
Generated Nodes:
[[8,7,5][0,4,1][3,6,2]] - Already visited Node!
[[8,7,5][3,4,1][6,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,6][8,0,4][3,2,1]]
Generated Nodes:
[[7,0,6][8,5,4][3,2,1]] - f(n) = 21 + 7 = 28
[[7,5,6][8,4,0][3,2,1]] - Already visited Node!
[[7,5,6][0,8,4][3,2,1]] - f(n) = 21 + 8 = 29
[[7,5,6][8,2,4][3,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,6][8,4,1][3,2,0]]
Generated Nodes:
[[7,5,6][8,4,0][3,2,1]] - Already visited Node!
[[7,5,6][8,4,1][3,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,4,0][2,6,5][8,3,1]]
Generated Nodes:
[[7,0,4][2,6,5][8,3,1]] - f(n) = 21 + 8 = 29
[[7,4,5][2,6,0][8,3,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][2,6,1][8,3,0]]
Generated Nodes:
[[7,4,5][2,6,0][8,3,1]] - Already visited Node!
[[7,4,5][2,6,1][8,0,3]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[2,4,0][5,7,1][8,3,6]]
Generated Nodes:
```

```
[[2,0,4][5,7,1][8,3,6]] - Already visited Node!
[[2,4,1][5,7,0][8,3,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[2,7,4][5,0,1][8,3,6]]
Generated Nodes:
[[2,0,4][5,7,1][8,3,6]] - Already visited Node!
[[2,7,4][5,1,0][8,3,6]] - f(n) = 21 + 8 = 29
[[2,7,4][0,5,1][8,3,6]] - f(n) = 21 + 7 = 28
[[2,7,4][5,3,1][8,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[1,0,2][8,7,5][3,6,4]]
Generated Nodes:
[[1,2,0][8,7,5][3,6,4]] - f(n) = 22 + 6 = 28
[[0,1,2][8,7,5][3,6,4]] - f(n) = 22 + 8 = 30
[[1,7,2][8,0,5][3,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[1,7,2][0,8,5][3,6,4]]
Generated Nodes:
[[0,7,2][1,8,5][3,6,4]] - f(n) = 22 + 8 = 30
[[1,7,2][8,0,5][3,6,4]] - Already visited Node!
[[1,7,2][3,8,5][0,6,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,7,2][8,6,5][3,0,4]]
Generated Nodes:
[[1,7,2][8,0,5][3,6,4]] - Already visited Node!
[[1,7,2][8,6,5][3,4,0]] - f(n) = 22 + 7 = 29
[[1,7,2][8,6,5][0,3,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[5,2,0][8,3,4][7,1,6]]
Generated Nodes:
[[5,0,2][8,3,4][7,1,6]] - f(n) = 23 + 7 = 30
[[5,2,4][8,3,0][7,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][8,0,3][7,1,6]]
Generated Nodes:
[[5,0,4][8,2,3][7,1,6]] - f(n) = 23 + 7 = 30
[[5,2,4][8,3,0][7,1,6]] - Already visited Node!
[[5,2,4][0,8,3][7,1,6]] - Already visited Node!
[[5,2,4][8,1,3][7,0,6]] - f(n) = 23 + 6 = 29
```

```
Node Chosen for Level 22 - [[7,2,8][3,4,0][1,5,6]]
Generated Nodes:
[[7,2,0][3,4,8][1,5,6]] - f(n) = 22 + 7 = 29
[[7,2,8][3,0,4][1,5,6]] - Already visited Node!
[[7,2,8][3,4,6][1,5,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,8][0,3,4][1,5,6]]
Generated Nodes:
[[0,2,8][7,3,4][1,5,6]] - f(n) = 22 + 7 = 29
[[7,2,8][3,0,4][1,5,6]] - Already visited Node!
[[7,2,8][1,3,4][0,5,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,0,2][5,7,6][1,4,8]]
Generated Nodes:
[[3,2,0][5,7,6][1,4,8]] - f(n) = 22 + 6 = 28
[[0,3,2][5,7,6][1,4,8]] - f(n) = 22 + 7 = 29
[[3,7,2][5,0,6][1,4,8]] - Already visited Node!
Node Chosen for Level 21 - [[8,4,0][5,2,7][3,1,6]]
Generated Nodes:
[[8,0,4][5,2,7][3,1,6]] - Already visited Node!
[[8,4,7][5,2,0][3,1,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,8,4][5,2,7][3,1,6]]
Generated Nodes:
[[8,0,4][5,2,7][3,1,6]] - Already visited Node!
[[5,8,4][0,2,7][3,1,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,1,0][7,2,8][3,6,4]]
Generated Nodes:
[[5,0,1][7,2,8][3,6,4]] - Already visited Node!
[[5,1,8][7,2,0][3,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[0,5,1][7,2,8][3,6,4]]
Generated Nodes:
[[5,0,1][7,2,8][3,6,4]] - Already visited Node!
[[7,5,1][0,2,8][3,6,4]] - f(n) = 21 + 8 = 29
```

```
Node Chosen for Level 21 - [[7,5,2][3,0,4][6,1,8]]
Generated Nodes:
[[7,0,2][3,5,4][6,1,8]] - f(n) =
                                  21 + 7 = 28
[[7,5,2][3,4,0][6,1,8]] - f(n) =
                                  21 + 8 = 29
[[7,5,2][0,3,4][6,1,8]] - f(n) = 21 + 8 = 29
[[7,5,2][3,1,4][6,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][3,1,4][0,6,8]]
Generated Nodes:
[[7,5,2][0,1,4][3,6,8]] - f(n) = 21 + 8 = 29
[[7,5,2][3,1,4][6,0,8]] - Already visited Node!
Node Chosen for Level 21 - [[5,1,0][7,6,2][8,4,3]]
Generated Nodes:
[[5,0,1][7,6,2][8,4,3]] - f(n) = 21 + 8 = 29
[[5,1,2][7,6,0][8,4,3]] - Already visited Node!
Node Chosen for Level 21 - [[5,1,2][7,6,3][8,4,0]]
Generated Nodes:
[[5,1,2][7,6,0][8,4,3]] - Already visited Node!
[[5,1,2][7,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,0,2][5,7,1][6,8,4]]
Generated Nodes:
[[3,2,0][5,7,1][6,8,4]] - f(n) = 22 + 6 = 28
[[0,3,2][5,7,1][6,8,4]] - f(n) = 22 + 7 = 29
[[3,7,2][5,0,1][6,8,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,2][5,1,0][6,8,4]]
Generated Nodes:
[[3,7,0][5,1,2][6,8,4]] - f(n) = 22 + 7 = 29
[[3,7,2][5,0,1][6,8,4]] - Already visited Node!
[[3,7,2][5,1,4][6,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[4,5,2][8,0,6][7,3,1]]
Generated Nodes:
[[4,0,2][8,5,6][7,3,1]] - f(n) = 23 + 5 = 28
```

```
[[4,5,2][8,6,0][7,3,1]] - f(n) = 23 + 7 = 30
[[4,5,2][0,8,6][7,3,1]] - Already visited Node!
[[4,5,2][8,3,6][7,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,8,0][4,3,2][7,1,6]]
Generated Nodes:
[[5,0,8][4,3,2][7,1,6]] - f(n) = 23 + 6 = 29
[[5,8,2][4,3,0][7,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,8,2][4,0,3][7,1,6]]
Generated Nodes:
[[5,0,2][4,8,3][7,1,6]] - f(n) = 23 + 6 = 29
[[5,8,2][4,3,0][7,1,6]] - Already visited Node!
[[5,8,2][0,4,3][7,1,6]] - f(n) = 23 + 7 = 30
[[5,8,2][4,1,3][7,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,1][3,5,4][0,6,8]]
Generated Nodes:
[[7,2,1][0,5,4][3,6,8]] - f(n) = 23 + 6 = 29
[[7,2,1][3,5,4][6,0,8]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,2][1,3,4][5,8,6]]
Generated Nodes:
[[7,2,0][1,3,4][5,8,6]] - f(n) = 22 + 6 = 28
[[0,7,2][1,3,4][5,8,6]] - Already visited Node!
[[7,3,2][1,0,4][5,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,8,2][0,4,6][1,7,3]]
Generated Nodes:
[[0,8,2][5,4,6][1,7,3]] - f(n) = 22 + 7 = 29
[[5,8,2][4,0,6][1,7,3]] - f(n) = 22 + 6 = 28
[[5,8,2][1,4,6][0,7,3]] - Already visited Node!
Node Chosen for Level 23 - [[1,3,2][5,8,4][7,6,0]]
Generated Nodes:
[[1,3,2][5,8,0][7,6,4]] - f(n) = 23 + 6 = 29
[[1,3,2][5,8,4][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,7,2][3,5,6][0,1,8]]
```

```
Generated Nodes:
[[4,7,2][0,5,6][3,1,8]] - Already visited Node!
[[4,7,2][3,5,6][1,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[7,2,1][6,3,5][8,0,4]]
Generated Nodes:
[[7,2,1][6,0,5][8,3,4]] - Already visited Node!
[[7,2,1][6,3,5][8,4,0]] - f(n) = 22 + 7 = 29
[[7,2,1][6,3,5][0,8,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[5,4,0][3,6,2][7,8,1]]
Generated Nodes:
[[5,0,4][3,6,2][7,8,1]] - f(n) = 23 + 6 = 29
[[5,4,2][3,6,0][7,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,2][3,6,1][7,8,0]]
Generated Nodes:
[[5,4,2][3,6,0][7,8,1]] - Already visited Node!
[[5,4,2][3,6,1][7,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,2][3,8,6][7,1,0]]
Generated Nodes:
[[5,4,2][3,8,0][7,1,6]] - f(n) = 23 + 7 = 30
[[5,4,2][3,8,6][7,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[2,4,0][5,3,1][7,8,6]]
Generated Nodes:
[[2,0,4][5,3,1][7,8,6]] - Already visited Node!
[[2,4,1][5,3,0][7,8,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[2,3,4][5,0,1][7,8,6]]
Generated Nodes:
[[2,0,4][5,3,1][7,8,6]] - Already visited Node!
[[2,3,4][5,1,0][7,8,6]] - f(n) = 23 + 6 = 29
[[2,3,4][0,5,1][7,8,6]] - f(n) = 23 + 5 = 28
[[2,3,4][5,8,1][7,0,6]] - f(n) = 23 + 7 = 30
```

Node Chosen for Level 23 - [[5,4,0][3,2,1][7,8,6]]

```
Generated Nodes:
[[5,0,4][3,2,1][7,8,6]] - Already visited Node!
[[5,4,1][3,2,0][7,8,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,5,4][3,2,1][7,8,6]]
Generated Nodes:
[[5,0,4][3,2,1][7,8,6]] - Already visited Node!
[[3,5,4][0,2,1][7,8,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,4][3,8,1][7,6,0]]
Generated Nodes:
[[5,2,4][3,8,0][7,6,1]] - f(n) = 23 + 6 = 29
[[5,2,4][3,8,1][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,6][7,3,5][4,8,1]]
Generated Nodes:
[[2,0,6][7,3,5][4,8,1]] - f(n) = 23 + 7 = 30
[[7,2,6][0,3,5][4,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][7,0,3][4,8,1]]
Generated Nodes:
[[5,0,6][7,2,3][4,8,1]] - f(n) = 23 + 7 = 30
[[5,2,6][7,3,0][4,8,1]] - Already visited Node!
[[5,2,6][0,7,3][4,8,1]] - f(n) = 23 + 6 = 29
[[5,2,6][7,8,3][4,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,6][7,3,1][4,8,0]]
Generated Nodes:
[[5,2,6][7,3,0][4,8,1]] - Already visited Node!
[[5,2,6][7,3,1][4,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[8,1,2][7,5,4][3,0,6]]
Generated Nodes:
[[8,1,2][7,0,4][3,5,6]] - f(n) = 22 + 8 = 30
[[8,1,2][7,5,4][3,6,0]] - f(n) = 22 + 7 = 29
[[8,1,2][7,5,4][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[1,5,2][7,8,4][3,0,6]]
```

```
Generated Nodes:
[[1,5,2][7,0,4][3,8,6]] - f(n) = 22 + 6 = 28
[[1,5,2][7,8,4][3,6,0]] - Already visited Node!
[[1,5,2][7,8,4][0,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][7,0,3][4,8,1]]
Generated Nodes:
[[5,0,6][7,2,3][4,8,1]] - f(n) = 23 + 7 = 30
[[5,2,6][7,3,0][4,8,1]] - Already visited Node!
[[5,2,6][0,7,3][4,8,1]] - f(n) = 23 + 6 = 29
[[5,2,6][7,8,3][4,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,6][7,3,1][4,8,0]]
Generated Nodes:
[[5,2,6][7,3,0][4,8,1]] - Already visited Node!
[[5,2,6][7,3,1][4,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,6][7,0,4][1,8,3]]
Generated Nodes:
[[5,0,6][7,2,4][1,8,3]] - f(n) = 23 + 7 = 30
[[5,2,6][7,4,0][1,8,3]] - Already visited Node!
[[5,2,6][0,7,4][1,8,3]] - f(n) = 23 + 6 = 29
[[5,2,6][7,8,4][1,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,6][7,4,3][1,8,0]]
Generated Nodes:
[[5,2,6][7,4,0][1,8,3]] - Already visited Node!
[[5,2,6][7,4,3][1,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,6][5,0,4][7,3,1]]
Generated Nodes:
[[8,0,6][5,2,4][7,3,1]] - f(n) = 23 + 7 = 30
[[8,2,6][5,4,0][7,3,1]] - Already visited Node!
[[8,2,6][0,5,4][7,3,1]] - f(n) = 23 + 5 = 28
[[8,2,6][5,3,4][7,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[8,2,6][5,4,1][7,3,0]]
Generated Nodes:
```

[[8,2,6][5,4,0][7,3,1]] - Already visited Node!

```
[[8,2,6][5,4,1][7,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,1,2][3,0,6][7,4,8]]
Generated Nodes:
[[5,0,2][3,1,6][7,4,8]] - f(n) = 23 + 6 = 29
[[5,1,2][3,6,0][7,4,8]] - f(n) =
                                  23 + 7 = 30
[[5,1,2][0,3,6][7,4,8]] - f(n) = 23 + 6 = 29
[[5,1,2][3,4,6][7,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[3,2,4][5,0,6][1,7,8]]
Generated Nodes:
[[3,0,4][5,2,6][1,7,8]] - f(n) =
                                  23 + 7 = 30
[[3,2,4][5,6,0][1,7,8]] - f(n) = 23 + 7 = 30
[[3,2,4][0,5,6][1,7,8]] - f(n) = 23 + 5 = 28
[[3,2,4][5,7,6][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[3,2,4][5,7,6][0,1,8]]
Generated Nodes:
[[3,2,4][0,7,6][5,1,8]] - f(n) = 23 + 6 = 29
[[3,2,4][5,7,6][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,0][4,1,2][3,8,6]]
Generated Nodes:
[[7,0,5][4,1,2][3,8,6]] - f(n) = 23 + 6 = 29
[[7,5,2][4,1,0][3,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][4,0,1][3,8,6]]
Generated Nodes:
[[7,0,2][4,5,1][3,8,6]] - f(n) = 23 + 5 = 28
[[7,5,2][4,1,0][3,8,6]] - Already visited Node!
[[7,5,2][0,4,1][3,8,6]] - f(n) = 23 + 7 = 30
[[7,5,2][4,8,1][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[1,0,2][5,7,3][8,6,4]]
Generated Nodes:
[[1,2,0][5,7,3][8,6,4]] - f(n) = 22 + 6 = 28
[[0,1,2][5,7,3][8,6,4]] - f(n) = 22 + 8 = 30
[[1,7,2][5,0,3][8,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[1,7,2][5,6,3][8,0,4]]
```

```
Generated Nodes:
[[1,7,2][5,0,3][8,6,4]] - Already visited Node!
[[1,7,2][5,6,3][8,4,0]] - f(n) = 22 + 7 = 29
[[1,7,2][5,6,3][0,8,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[3,7,5][4,0,6][1,2,8]]
Generated Nodes:
[[3,0,5][4,7,6][1,2,8]] - f(n) = 23 + 6 = 29
[[3,7,5][4,6,0][1,2,8]] - f(n) = 23 + 7 = 30
[[3,7,5][0,4,6][1,2,8]] - f(n) = 23 + 7 = 30
[[3,7,5][4,2,6][1,0,8]] - Already visited Node!
```

Node Chosen for Level 23 - [[3,7,5][4,2,6][0,1,8]]

Generated Nodes:

```
[[3,7,5][0,2,6][4,1,8]] - f(n) = 23 + 7 = 30
[[3,7,5][4,2,6][1,0,8]] - Already visited Node!
```

Node Chosen for Level 24 - [[3,0,2][1,5,4][7,8,6]]

Generated Nodes:

```
[[3,2,0][1,5,4][7,8,6]] - f(n) = 24 + 4 = 28
[[0,3,2][1,5,4][7,8,6]] - Already visited Node!
[[3,5,2][1,0,4][7,8,6]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 23 - [[1,7,5][3,0,2][4,8,6]]

Generated Nodes:

```
[[1,0,5][3,7,2][4,8,6]] - f(n) = 23 + 6 = 29
[[1,7,5][3,2,0][4,8,6]] - f(n) = 23 + 6 = 29
[[1,7,5][0,3,2][4,8,6]] - Already visited Node!
[[1,7,5][3,8,2][4,0,6]] - f(n) = 23 + 7 = 30
```

Node Chosen for Level 25 - [[1,2,4][5,0,6][7,3,8]]

Generated Nodes:

```
[[1,0,4][5,2,6][7,3,8]] - f(n) = 25 + 5 = 30
[[1,2,4][5,6,0][7,3,8]] - f(n) = 25 + 5 = 30
[[1,2,4][0,5,6][7,3,8]] - f(n) =
                                 25 + 3 = 28
[[1,2,4][5,3,6][7,0,8]] - Already visited Node!
```

Node Chosen for Level 25 - [[5,2,6][4,1,3][7,8,0]]

Generated Nodes:

```
[[5,2,6][4,1,0][7,8,3]] - Already visited Node!
[[5,2,6][4,1,3][7,0,8]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[1,2,6][5,0,4][7,8,3]]
Generated Nodes:
[[1,0,6][5,2,4][7,8,3]] - f(n) = 25 + 5 = 30
[[1,2,6][5,4,0][7,8,3]] - Already visited Node!
[[1,2,6][0,5,4][7,8,3]] - f(n) = 25 + 3 = 28
[[1,2,6][5,8,4][7,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[1,2,6][5,4,3][7,8,0]]
Generated Nodes:
[[1,2,6][5,4,0][7,8,3]] - Already visited Node!
[[1,2,6][5,4,3][7,0,8]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[7,2,3][4,1,5][8,0,6]]
Generated Nodes:
[[7,2,3][4,0,5][8,1,6]] - Already visited Node!
[[7,2,3][4,1,5][8,6,0]] - f(n) = 24 + 5 = 29
[[7,2,3][4,1,5][0,8,6]] - f(n) = 24 + 4 = 28
Node Chosen for Level 22 - [[3,7,4][0,2,6][1,5,8]]
Generated Nodes:
[[0,7,4][3,2,6][1,5,8]] - Already visited Node!
[[3,7,4][2,0,6][1,5,8]] - f(n) = 22 + 7 = 29
[[3,7,4][1,2,6][0,5,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,4][3,6,8][1,0,5]]
Generated Nodes:
[[7,2,4][3,0,8][1,6,5]] - Already visited Node!
[[7,2,4][3,6,8][1,5,0]] - Already visited Node!
[[7,2,4][3,6,8][0,1,5]] - f(n) = 22 + 7 = 29
Node Chosen for Level 21 - [[0,3,2][1,7,4][8,5,6]]
Generated Nodes:
[[3,0,2][1,7,4][8,5,6]] - Already visited Node!
[[1,3,2][0,7,4][8,5,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[3,7,0][1,4,2][8,5,6]]
```

```
Generated Nodes:
[[3,0,7][1,4,2][8,5,6]] - f(n) = 21 + 8 = 29
[[3,7,2][1,4,0][8,5,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,2][3,1,4][8,5,6]]
Generated Nodes:
[[7,0,2][3,1,4][8,5,6]] - f(n) = 21 + 8 = 29
[[3,7,2][0,1,4][8,5,6]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,2][8,1,4][0,5,6]]
Generated Nodes:
[[3,7,2][0,1,4][8,5,6]] - Already visited Node!
[[3,7,2][8,1,4][5,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[7,2,4][1,6,3][8,0,5]]
Generated Nodes:
[[7,2,4][1,0,3][8,6,5]] - Already visited Node!
[[7,2,4][1,6,3][8,5,0]] - Already visited Node! [[7,2,4][1,6,3][0,8,5]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[0,2,6][7,3,5][4,8,1]]
Generated Nodes:
[[2,0,6][7,3,5][4,8,1]] - f(n) = 23 + 7 = 30
[[7,2,6][0,3,5][4,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,6][7,4,2][3,8,1]]
Generated Nodes:
[[5,6,0][7,4,2][3,8,1]] - f(n) = 22 + 7 = 29
[[0,5,6][7,4,2][3,8,1]] - f(n) = 22 + 7 = 29
[[5,4,6][7,0,2][3,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,6][0,7,2][3,8,1]]
Generated Nodes:
[[0,4,6][5,7,2][3,8,1]] - f(n) = 22 + 7 = 29
[[5,4,6][7,0,2][3,8,1]] - Already visited Node!
[[5,4,6][3,7,2][0,8,1]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[7,5,2][0,6,4][3,8,1]]

```
Generated Nodes:
[[0,5,2][7,6,4][3,8,1]] - Already visited Node!
[[7,5,2][6,0,4][3,8,1]] - f(n) = 22 + 7 = 29
[[7,5,2][3,6,4][0,8,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,6,2][7,4,0][3,8,1]]
Generated Nodes:
[[5,6,0][7,4,2][3,8,1]] - f(n) = 22 + 7 = 29
[[5,6,2][7,0,4][3,8,1]] - Already visited Node!
[[5,6,2][7,4,1][3,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,6,2][0,7,4][3,8,1]]
Generated Nodes:
[[0,6,2][5,7,4][3,8,1]] - f(n) = 22 + 7 = 29
[[5,6,2][7,0,4][3,8,1]] - Already visited Node!
[[5,6,2][3,7,4][0,8,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,4,5][7,3,0][1,8,6]]
Generated Nodes:
[[2,4,0][7,3,5][1,8,6]] - Already visited Node!
[[2,4,5][7,0,3][1,8,6]] - f(n) = 22 + 7 = 29
[[2,4,5][7,3,6][1,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[2,3,4][0,7,5][1,8,6]]
Generated Nodes:
[[0,3,4][2,7,5][1,8,6]] - f(n) = 22 + 7 = 29
[[2,3,4][7,0,5][1,8,6]] - Already visited Node!
[[2,3,4][1,7,5][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[7,2,4][5,1,6][0,3,8]]
Generated Nodes:
[[7,2,4][0,1,6][5,3,8]] - f(n) = 23 + 6 = 29
[[7,2,4][5,1,6][3,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][4,1,3][8,5,0]]
Generated Nodes:
[[7,2,6][4,1,0][8,5,3]] - Already visited Node!
```

[[7,2,6][4,1,3][8,0,5]] - f(n) = 23 + 6 = 29

```
Node Chosen for Level 22 - [[8,0,7][3,5,2][4,1,6]]
Generated Nodes:
[[8,7,0][3,5,2][4,1,6]] - Already visited Node!
[[0,8,7][3,5,2][4,1,6]] - f(n) = 22 + 7 = 29
[[8,5,7][3,0,2][4,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 21 - [[0,8,2][3,7,1][6,5,4]]
Generated Nodes:
[[8,0,2][3,7,1][6,5,4]] - Already visited Node!
[[3,8,2][0,7,1][6,5,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,0][3,1,2][6,5,4]]
Generated Nodes:
[[8,0,7][3,1,2][6,5,4]] - f(n) = 21 + 8 = 29
[[8,7,2][3,1,0][6,5,4]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,2][3,1,4][6,5,0]]
Generated Nodes:
[[8,7,2][3,1,0][6,5,4]] - Already visited Node!
[[8,7,2][3,1,4][6,0,5]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,2][8,3,1][6,5,4]]
Generated Nodes:
[[7,0,2][8,3,1][6,5,4]] - f(n) = 21 + 8 = 29
[[8,7,2][0,3,1][6,5,4]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,2][6,3,1][0,5,4]]
Generated Nodes:
[[8,7,2][0,3,1][6,5,4]] - Already visited Node!
[[8,7,2][6,3,1][5,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,3,2][5,7,8][1,6,4]]
Generated Nodes:
[[3,0,2][5,7,8][1,6,4]] - Already visited Node!
[[5,3,2][0,7,8][1,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,0][5,8,2][1,6,4]]
```

```
Generated Nodes :
```

```
[[3,0,7][5,8,2][1,6,4]] - f(n) = 21 + 8 = 29
[[3,7,2][5,8,0][1,6,4]] - Already visited Node!
```

Node Chosen for Level 21 - [[3,7,2][5,6,8][1,4,0]]

Generated Nodes:

$$[[3,7,2][5,6,0][1,4,8]] - f(n) = 21 + 8 = 29$$

 $[[3,7,2][5,6,8][1,0,4]] - Already visited Node!$

Node Chosen for Level 21 - [[3,7,2][5,6,8][0,1,4]]

Generated Nodes:

[[3,7,2][0,6,8][5,1,4]] - f(n) = 21 + 8 = 29[[3,7,2][5,6,8][1,0,4]] - Already visited Node!

Node Character for Level 22 [[7 F 4] [0 2 2] [4 0 C]]

Node Chosen for Level 22 - [[7,5,4][0,2,3][1,8,6]]

Generated Nodes:

[[0,5,4][7,2,3][1,8,6]] - Already visited Node! [[7,5,4][2,0,3][1,8,6]] - f(n) = 22 + 7 = 29 [[7,5,4][1,2,3][0,8,6]] - f(n) = 22 + 7 = 29

Node Chosen for Level 22 - [[5,2,4][7,8,0][1,6,3]]

Generated Nodes:

```
[[5,2,0][7,8,4][1,6,3]] - f(n) = 22 + 7 = 29

[[5,2,4][7,0,8][1,6,3]] - f(n) = 22 + 7 = 29

[[5,2,4][7,8,3][1,6,0]] - Already visited Node!
```

Node Chosen for Level 23 - [[0,2,4][5,3,6][8,7,1]]

Generated Nodes :

$$[[2,0,4][5,3,6][8,7,1]] - f(n) = 23 + 7 = 30$$

 $[[5,2,4][0,3,6][8,7,1]] - Already visited Node!$

Node Chosen for Level 22 - [[8,0,7][4,6,5][3,2,1]]

Generated Nodes:

```
[[8,7,0][4,6,5][3,2,1]] - Already visited Node! [[0,8,7][4,6,5][3,2,1]] - f(n) = 22 + 7 = 29 [[8,6,7][4,0,5][3,2,1]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[8,7,5][3,4,6][2,0,1]]

```
Generated Nodes:
[[8,7,5][3,0,6][2,4,1]] - f(n) = 22 + 7 = 29
[[8,7,5][3,4,6][2,1,0]] - f(n) = 22 + 7 = 29
[[8,7,5][3,4,6][0,2,1]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,5][8,2,6][4,3,1]]
Generated Nodes:
[[7,5,0][8,2,6][4,3,1]] - f(n) = 22 + 7 = 29
[[0,7,5][8,2,6][4,3,1]] - Already visited Node!
[[7,2,5][8,0,6][4,3,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[8,0,5][2,7,6][4,3,1]]
Generated Nodes:
[[8,5,0][2,7,6][4,3,1]] - f(n) = 22 + 7 = 29
[[0,8,5][2,7,6][4,3,1]] - f(n) = 22 + 7 = 29
[[8,7,5][2,0,6][4,3,1]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][2,3,6][4,0,1]]
Generated Nodes:
[[8,7,5][2,0,6][4,3,1]] - Already visited Node!
[[8,7,5][2,3,6][4,1,0]] - f(n) = 22 + 7 = 29
[[8,7,5][2,3,6][0,4,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,4][0,2,6][8,1,3]]
Generated Nodes:
[[0,5,4][7,2,6][8,1,3]] - Already visited Node!
[[7,5,4][2,0,6][8,1,3]] - f(n) = 22 + 7 = 29
[[7,5,4][8,2,6][0,1,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,4][7,6,3][8,0,1]]
Generated Nodes:
[[5,2,4][7,0,3][8,6,1]] - Already visited Node!
[[5,2,4][7,6,3][8,1,0]] - Already visited Node!
[[5,2,4][7,6,3][0,8,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[0,3,2][5,7,6][4,8,1]]
Generated Nodes:
```

[[3,0,2][5,7,6][4,8,1]] - Already visited Node!

```
[[5,3,2][0,7,6][4,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[2,4,8][5,1,0][7,3,6]]
Generated Nodes:
[[2,4,0][5,1,8][7,3,6]] - Already visited Node!
[[2,4,8][5,0,1][7,3,6]] - f(n) = 22 + 7 = 29
[[2,4,8][5,1,6][7,3,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[2,1,4][5,8,0][7,3,6]]
Generated Nodes:
[[2,1,0][5,8,4][7,3,6]] - f(n) = 22 + 7 = 29
[[2,1,4][5,0,8][7,3,6]] - Already visited Node!
[[2,1,4][5,8,6][7,3,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[2,1,4][5,3,8][7,0,6]]
Generated Nodes:
[[2,1,4][5,0,8][7,3,6]] - Already visited Node!
[[2,1,4][5,3,8][7,6,0]] - f(n) = 22 + 7 = 29
[[2,1,4][5,3,8][0,7,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,8][1,2,0][7,3,6]]
Generated Nodes:
[[5,4,0][1,2,8][7,3,6]] - Already visited Node!
[[5,4,8][1,0,2][7,3,6]] - Already visited Node!
[[5,4,8][1,2,6][7,3,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,1,2][3,8,0][7,6,4]]
Generated Nodes:
[[5,1,0][3,8,2][7,6,4]] - f(n) = 22 + 7 = 29
[[5,1,2][3,0,8][7,6,4]] - f(n) = 22 + 7 = 29
[[5,1,2][3,8,4][7,6,0]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,1][7,3,5][6,8,4]]
Generated Nodes:
[[2,0,1][7,3,5][6,8,4]] - f(n) = 23 + 7 = 30
[[7,2,1][0,3,5][6,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,1][6,3,5][0,8,4]]
Generated Nodes:
```

```
[[7,2,1][0,3,5][6,8,4]] - Already visited Node!
[[7,2,1][6,3,5][8,0,4]] - Already visited Node!
Node Chosen for Level 22 - [[8,2,6][5,4,7][3,0,1]]
Generated Nodes:
[[8,2,6][5,0,7][3,4,1]] - Already visited Node!
[[8,2,6][5,4,7][3,1,0]] - f(n) = 22 + 7 = 29
[[8,2,6][5,4,7][0,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,2,6][5,7,1][3,0,4]]
Generated Nodes:
[[8,2,6][5,0,1][3,7,4]] - f(n) = 22 + 7 = 29
[[8,2,6][5,7,1][3,4,0]] - Already visited Node!
[[8,2,6][5,7,1][0,3,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,0,2][5,7,6][1,4,8]]
Generated Nodes:
[[3,2,0][5,7,6][1,4,8]] - f(n) = 22 + 6 = 28
[[0,3,2][5,7,6][1,4,8]] - f(n) = 22 + 7 = 29
[[3,7,2][5,0,6][1,4,8]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,2][0,4,6][5,1,8]]
Generated Nodes:
[[0,7,2][3,4,6][5,1,8]] - f(n) = 22 + 7 = 29
[[3,7,2][4,0,6][5,1,8]] - f(n) = 22 + 6 = 28
[[3,7,2][5,4,6][0,1,8]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,2][7,6,1][4,8,3]]
Generated Nodes:
[[5,2,0][7,6,1][4,8,3]] - f(n) = 22 + 6 = 28
[[0,5,2][7,6,1][4,8,3]] - Already visited Node!
[[5,6,2][7,0,1][4,8,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,2][6,1,0][4,8,3]]
Generated Nodes:
[[7,5,0][6,1,2][4,8,3]] - f(n) = 22 + 7 = 29
[[7,5,2][6,0,1][4,8,3]] - Already visited Node!
[[7,5,2][6,1,3][4,8,0]] - f(n) = 22 + 7 = 29
```

```
Node Chosen for Level 22 - [[7,0,5][4,6,2][3,1,8]]
Generated Nodes:
[[7,5,0][4,6,2][3,1,8]] - Already visited Node!
[[0,7,5][4,6,2][3,1,8]] - f(n) = 22 + 7 = 29
[[7,6,5][4,0,2][3,1,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,2][4,6,8][3,0,1]]
Generated Nodes:
[[7,5,2][4,0,8][3,6,1]] - f(n) = 22 + 7 = 29
[[7,5,2][4,6,8][3,1,0]] - Already visited Node!
[[7,5,2][4,6,8][0,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,7,5][4,8,0][1,6,2]]
Generated Nodes:
[[3,7,0][4,8,5][1,6,2]] - f(n) = 22 + 7 = 29
[[3,7,5][4,0,8][1,6,2]] - f(n) = 22 + 7 = 29
[[3,7,5][4,8,2][1,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,5][3,4,6][1,2,8]]
Generated Nodes:
[[7,5,0][3,4,6][1,2,8]] - f(n) = 22 + 7 = 29
[[0,7,5][3,4,6][1,2,8]] - f(n) = 22 + 7 = 29
[[7,4,5][3,0,6][1,2,8]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][0,3,6][1,2,8]]
Generated Nodes:
[[0,4,5][7,3,6][1,2,8]] - f(n) = 22 + 7 = 29
[[7,4,5][3,0,6][1,2,8]] - Already visited Node!
[[7,4,5][1,3,6][0,2,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,4,5][0,2,6][3,1,8]]
Generated Nodes:
[[0,4,5][7,2,6][3,1,8]] - f(n) = 22 + 7 = 29
[[7,4,5][2,0,6][3,1,8]] - f(n) = 22 + 7 = 29
[[7,4,5][3,2,6][0,1,8]] - Already visited Node!
Node Chosen for Level 22 - [[5,3,2][0,7,6][1,4,8]]
```

Generated Nodes :

```
[[0,3,2][5,7,6][1,4,8]] - f(n) = 22 + 7 = 29
[[5,3,2][7,0,6][1,4,8]] - Already visited Node!
[[5,3,2][1,7,6][0,4,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,2,7][3,4,5][1,0,6]]
Generated Nodes:
[[8,2,7][3,0,5][1,4,6]] - Already visited Node!
[[8,2,7][3,4,5][1,6,0]] - f(n) = 22 + 7 = 29
[[8,2,7][3,4,5][0,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,5][3,4,6][1,2,8]]
Generated Nodes:
[[7,5,0][3,4,6][1,2,8]] - f(n) = 22 + 7 = 29
[[0,7,5][3,4,6][1,2,8]] - f(n) = 22 + 7 = 29
[[7,4,5][3,0,6][1,2,8]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][0,3,6][1,2,8]]
Generated Nodes:
[[0,4,5][7,3,6][1,2,8]] - f(n) = 22 + 7 = 29
[[7,4,5][3,0,6][1,2,8]] - Already visited Node!
[[7,4,5][1,3,6][0,2,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,4,5][0,2,6][3,1,8]]
Generated Nodes:
[[0,4,5][7,2,6][3,1,8]] - f(n) = 22 + 7 = 29
[[7,4,5][2,0,6][3,1,8]] - f(n) = 22 + 7 = 29
[[7,4,5][3,2,6][0,1,8]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,6][4,3,8][7,0,1]]
Generated Nodes:
[[5,2,6][4,0,8][7,3,1]] - Already visited Node!
[[5,2,6][4,3,8][7,1,0]] - f(n) = 24 + 5 = 29
[[5,2,6][4,3,8][0,7,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,6][4,8,1][7,0,3]]
Generated Nodes:
[[5,2,6][4,0,1][7,8,3]] - Already visited Node!
[[5,2,6][4,8,1][7,3,0]] - Already visited Node!
[[5,2,6][4,8,1][0,7,3]] - f(n) = 24 + 6 = 30
```

```
Node Chosen for Level 24 - [[7,2,6][4,5,8][3,0,1]]
Generated Nodes:
[[7,2,6][4,0,8][3,5,1]] - f(n) = 24 + 6 = 30
[[7,2,6][4,5,8][3,1,0]] - Already visited Node!
[[7,2,6][4,5,8][0,3,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[0,2,3][7,1,5][8,6,4]]
Generated Nodes:
[[2,0,3][7,1,5][8,6,4]] - f(n) = 23 + 7 = 30
[[7,2,3][0,1,5][8,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,3][8,1,5][0,6,4]]
Generated Nodes:
[[7,2,3][0,1,5][8,6,4]] - Already visited Node!
[[7,2,3][8,1,5][6,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,3][1,6,5][8,4,0]]
Generated Nodes:
[[7,2,3][1,6,0][8,4,5]] - f(n) = 23 + 6 = 29
[[7,2,3][1,6,5][8,0,4]] - Already visited Node!
Node Chosen for Level 24 - [[5,0,1][4,6,2][7,8,3]]
Generated Nodes:
[[5,1,0][4,6,2][7,8,3]] - Already visited Node! [[0,5,1][4,6,2][7,8,3]] - f(n) = 24 + 5 = 29
[[5,6,1][4,0,2][7,8,3]] - f(n) = 24 + 5 = 29
Node Chosen for Level 21 - [[8,7,6][2,0,5][3,4,1]]
Generated Nodes:
[[8,0,6][2,7,5][3,4,1]] - f(n) = 21 + 8 = 29
[[8,7,6][2,5,0][3,4,1]] - f(n) = 21 + 7 = 28
[[8,7,6][0,2,5][3,4,1]] - Already visited Node!
[[8,7,6][2,4,5][3,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,6][3,2,5][0,4,1]]
Generated Nodes:
[[8,7,6][0,2,5][3,4,1]] - Already visited Node!
```

[[8,7,6][3,2,5][4,0,1]] - f(n) = 21 + 8 = 29

```
Node Chosen for Level 21 - [[0,8,7][5,6,2][3,4,1]]
Generated Nodes:
[[8,0,7][5,6,2][3,4,1]] - Already visited Node!
[[5,8,7][0,6,2][3,4,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,6,7][5,0,2][3,4,1]]
Generated Nodes:
[[8,0,7][5,6,2][3,4,1]] - Already visited Node!
[[8,6,7][5,2,0][3,4,1]] - f(n) = 21 + 8 = 29
[[8,6,7][0,5,2][3,4,1]] - f(n) = 21 + 7 = 28
[[8,6,7][5,4,2][3,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[3,7,0][5,8,2][1,6,4]]
Generated Nodes:
[[3,0,7][5,8,2][1,6,4]] - f(n) = 21 + 8 = 29
[[3,7,2][5,8,0][1,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,2][3,8,4][5,1,6]]
Generated Nodes:
[[7,0,2][3,8,4][5,1,6]] - f(n) = 21 + 8 = 29
[[3,7,2][0,8,4][5,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,2][8,0,4][5,1,6]]
Generated Nodes:
[[3,0,2][8,7,4][5,1,6]] - f(n) = 21 + 8 = 29
[[3,7,2][8,4,0][5,1,6]] - f(n) =
                                  21 + 8 = 29
[[3,7,2][0,8,4][5,1,6]] - Already visited Node!
[[3,7,2][8,1,4][5,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,1][2,0,5][3,6,4]]
Generated Nodes:
[[8,0,1][2,7,5][3,6,4]] - f(n) = 21 + 8 = 29
[[8,7,1][2,5,0][3,6,4]] - f(n) =
                                  21 + 7 = 28
[[8,7,1][0,2,5][3,6,4]] - Already visited Node!
[[8,7,1][2,6,5][3,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,1][3,2,5][0,6,4]]
```

Generated Nodes:

```
[[8,7,1][0,2,5][3,6,4]] - Already visited Node!
[[8,7,1][3,2,5][6,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,5][3,6,2][1,4,8]]
Generated Nodes:
[[7,0,5][3,6,2][1,4,8]] - Already visited Node!
[[3,7,5][0,6,2][1,4,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,6,5][3,0,2][1,4,8]]
Generated Nodes:
[[7,0,5][3,6,2][1,4,8]] - Already visited Node!
[[7,6,5][3,2,0][1,4,8]] - f(n) = 21 + 8 = 29
[[7,6,5][0,3,2][1,4,8]] - f(n) = 21 + 8 = 29
[[7,6,5][3,4,2][1,0,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[7,2,6][8,1,4][3,0,5]]
Generated Nodes:
[[7,2,6][8,0,4][3,1,5]] - Already visited Node!
[[7,2,6][8,1,4][3,5,0]] - Already visited Node! [[7,2,6][8,1,4][0,3,5]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,6][3,8,1][5,0,4]]
Generated Nodes:
[[7,2,6][3,0,1][5,8,4]] - f(n) = 22 + 6 = 28
[[7,2,6][3,8,1][5,4,0]] - f(n) = 22 + 7 = 29
[[7,2,6][3,8,1][0,5,4]] - Already visited Node!
Node Chosen for Level 21 - [[0,5,8][7,6,2][3,4,1]]
Generated Nodes:
[[5,0,8][7,6,2][3,4,1]] - Already visited Node!
[[7,5,8][0,6,2][3,4,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,6,8][7,0,2][3,4,1]]
Generated Nodes:
[[5,0,8][7,6,2][3,4,1]] - Already visited Node!
[[5,6,8][7,2,0][3,4,1]] - f(n) = 21 + 8 = 29
[[5,6,8][0,7,2][3,4,1]] - f(n) = 21 + 8 = 29
                                   21 + 8 = 29
[[5,6,8][7,4,2][3,0,1]] - f(n) =
```

```
Node Chosen for Level 21 - [[0,7,5][3,8,2][4,1,6]]
Generated Nodes:
[[7,0,5][3,8,2][4,1,6]] - Already visited Node!
[[3,7,5][0,8,2][4,1,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,8,5][3,0,2][4,1,6]]
Generated Nodes:
[[7,0,5][3,8,2][4,1,6]] - Already visited Node!
[[7,8,5][3,2,0][4,1,6]] - f(n) = 21 + 8 = 29
[[7,8,5][0,3,2][4,1,6]] - f(n) = 21 + 8 = 29
[[7,8,5][3,1,2][4,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,2][7,3,8][4,1,6]]
Generated Nodes:
[[5,0,2][7,3,8][4,1,6]] - f(n) = 21 + 8 = 29
[[7,5,2][0,3,8][4,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][3,1,8][4,6,0]]
Generated Nodes:
[[7,5,2][3,1,0][4,6,8]] - f(n) = 21 + 8 = 29
[[7,5,2][3,1,8][4,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][3,1,8][0,4,6]]
Generated Nodes:
[[7,5,2][0,1,8][3,4,6]] - f(n) = 21 + 8 = 29
[[7,5,2][3,1,8][4,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,5,4][7,6,2][8,3,1]]
Generated Nodes:
[[5,0,4][7,6,2][8,3,1]] - Already visited Node!
[[7,5,4][0,6,2][8,3,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,6,4][7,0,2][8,3,1]]
Generated Nodes:
[[5,0,4][7,6,2][8,3,1]] - Already visited Node!
[[5,6,4][7,2,0][8,3,1]] - f(n) = 21 + 8 = 29
[[5,6,4][0,7,2][8,3,1]] - f(n) = 21 + 8 = 29
[[5,6,4][7,3,2][8,0,1]] - f(n) = 21 + 8 = 29
```

```
Node Chosen for Level 21 - [[5,4,2][7,0,1][8,6,3]]
Generated Nodes:
[[5,0,2][7,4,1][8,6,3]] - f(n) =
                                  21 + 8 = 29
[[5,4,2][7,1,0][8,6,3]] - f(n) =
                                  21 + 8 = 29
[[5,4,2][0,7,1][8,6,3]] - f(n) = 21 + 8 = 29
[[5,4,2][7,6,1][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[2,4,8][5,0,7][3,1,6]]
Generated Nodes:
[[2,0,8][5,4,7][3,1,6]] - f(n) = 21 + 8 = 29
[[2,4,8][5,7,0][3,1,6]] - Already visited Node!
[[2,4,8][0,5,7][3,1,6]] - f(n) = 21 + 7 = 28
[[2,4,8][5,1,7][3,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[2,7,0][5,8,4][3,1,6]]
Generated Nodes:
[[2,0,7][5,8,4][3,1,6]] - f(n) = 21 + 8 = 29
[[2,7,4][5,8,0][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[2,7,4][5,1,8][3,6,0]]
Generated Nodes:
[[2,7,4][5,1,0][3,6,8]] - f(n) = 21 + 8 = 29
[[2,7,4][5,1,8][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[2,7,4][5,1,8][0,3,6]]
Generated Nodes:
[[2,7,4][0,1,8][5,3,6]] - f(n) = 21 + 8 = 29
[[2,7,4][5,1,8][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,0][7,8,2][1,6,4]]
Generated Nodes:
[[5,0,3][7,8,2][1,6,4]] - f(n) = 21 + 7 = 28
[[5,3,2][7,8,0][1,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,8,2][0,7,6][4,5,1]]
Generated Nodes:
[[0,8,2][3,7,6][4,5,1]] - Already visited Node!
```

```
[[3,8,2][7,0,6][4,5,1]] - f(n) = 22 + 7 = 29
[[3,8,2][4,7,6][0,5,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,0,2][8,3,6][4,5,1]]
Generated Nodes:
[[7,2,0][8,3,6][4,5,1]] - f(n) = 22 + 6 = 28
[[0,7,2][8,3,6][4,5,1]] - Already visited Node!
[[7,3,2][8,0,6][4,5,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,1][3,8,4][5,0,6]]
Generated Nodes:
[[7,2,1][3,0,4][5,8,6]] - f(n) = 22 + 6 = 28
[[7,2,1][3,8,4][5,6,0]] - f(n) = 22 + 7 = 29
[[7,2,1][3,8,4][0,5,6]] - Already visited Node!
Node Chosen for Level 21 - [[4,8,5][3,0,2][1,7,6]]
Generated Nodes:
[[4,0,5][3,8,2][1,7,6]] - f(n) = 21 + 8 = 29
[[4,8,5][3,2,0][1,7,6]] - f(n) =
                                  21 + 8 = 29
[[4,8,5][0,3,2][1,7,6]] - f(n) = 21 + 8 = 29
[[4,8,5][3,7,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[4,8,5][3,7,2][1,6,0]]
Generated Nodes:
[[4,8,5][3,7,0][1,6,2]] - f(n) = 21 + 8 = 29
[[4,8,5][3,7,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,0][8,1,2][4,3,6]]
Generated Nodes:
[[7,0,5][8,1,2][4,3,6]] - Already visited Node!
[[7,5,2][8,1,0][4,3,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,1,5][8,0,2][4,3,6]]
Generated Nodes:
[[7,0,5][8,1,2][4,3,6]] - Already visited Node!
[[7,1,5][8,2,0][4,3,6]] - f(n) = 21 + 8 = 29
[[7,1,5][0,8,2][4,3,6]] - f(n) =
                                  21 + 8 = 29
                                  21 + 8 = 29
[[7,1,5][8,3,2][4,0,6]] - f(n) =
Node Chosen for Level 21 - [[8,5,0][1,7,2][4,3,6]]
```

```
Generated Nodes:
[[8,0,5][1,7,2][4,3,6]] - Already visited Node!
[[8,5,2][1,7,0][4,3,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,8,5][1,7,2][4,3,6]]
Generated Nodes:
[[8,0,5][1,7,2][4,3,6]] - Already visited Node!
[[1,8,5][0,7,2][4,3,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[8,7,0][1,2,5][4,3,6]]
Generated Nodes:
[[8,0,7][1,2,5][4,3,6]] - f(n) = 21 + 8 = 29
[[8,7,5][1,2,0][4,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][1,3,2][4,6,0]]
Generated Nodes:
[[8,7,5][1,3,0][4,6,2]] - f(n) = 21 + 8 = 29
[[8,7,5][1,3,2][4,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,4][8,6,5][3,2,1]]
Generated Nodes:
[[7,0,4][8,6,5][3,2,1]] - Already visited Node!
[[8,7,4][0,6,5][3,2,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,6,4][8,0,5][3,2,1]]
Generated Nodes:
[[7,0,4][8,6,5][3,2,1]] - Already visited Node!
[[7,6,4][8,5,0][3,2,1]] - f(n) = 21 + 7 = 28
[[7,6,4][0,8,5][3,2,1]] - f(n) = 21 + 8 = 29
[[7,6,4][8,2,5][3,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,8][7,6,2][3,4,1]]
Generated Nodes:
[[5,0,8][7,6,2][3,4,1]] - Already visited Node!
[[7,5,8][0,6,2][3,4,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,6,8][7,0,2][3,4,1]]
```

```
Generated Nodes:
[[5,0,8][7,6,2][3,4,1]] - Already visited Node!
[[5,6,8][7,2,0][3,4,1]] - f(n) = 21 + 8 = 29
[[5,6,8][0,7,2][3,4,1]] - f(n) =
                                21 + 8 = 29
[[5,6,8][7,4,2][3,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,4][2,0,1][8,3,6]]
Generated Nodes:
[[7,0,4][2,5,1][8,3,6]] - f(n) = 21 + 7 = 28
[[7,5,4][2,1,0][8,3,6]] - f(n) = 21 + 8 = 29
[[7,5,4][0,2,1][8,3,6]] - Already visited Node!
[[7,5,4][2,3,1][8,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,4][8,2,1][0,3,6]]
Generated Nodes:
[[7,5,4][0,2,1][8,3,6]] - Already visited Node!
[[7,5,4][8,2,1][3,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,5][1,6,2][8,4,3]]
Generated Nodes:
[[7,0,5][1,6,2][8,4,3]] - Already visited Node!
[[1,7,5][0,6,2][8,4,3]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[7,6,5][1,0,2][8,4,3]]
Generated Nodes:
[[7,0,5][1,6,2][8,4,3]] - Already visited Node!
[[7,6,5][1,2,0][8,4,3]] - f(n) = 21 + 8 = 29
[[7,6,5][0,1,2][8,4,3]] - f(n) =
                                  21 + 8 = 29
[[7,6,5][1,4,2][8,0,3]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[1,0,7][8,4,2][3,5,6]]
Generated Nodes:
[[1,7,0][8,4,2][3,5,6]] - Already visited Node!
[[0,1,7][8,4,2][3,5,6]] - f(n) = 22 + 8 = 30
[[1,4,7][8,0,2][3,5,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,7,2][3,8,4][5,0,6]]
Generated Nodes:
```

[[1,7,2][3,0,4][5,8,6]] - Already visited Node!

```
[[1,7,2][3,8,4][5,6,0]] - f(n) = 22 + 7 = 29
[[1,7,2][3,8,4][0,5,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,4][5,3,6][8,7,1]]
Generated Nodes:
[[2,0,4][5,3,6][8,7,1]] - f(n) = 23 + 7 = 30
[[5,2,4][0,3,6][8,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[2,8,4][5,3,6][7,1,0]]
Generated Nodes:
[[2,8,4][5,3,0][7,1,6]] - f(n) = 23 + 7 = 30
[[2,8,4][5,3,6][7,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,5,4][2,0,6][7,3,1]]
Generated Nodes:
[[8,0,4][2,5,6][7,3,1]] - f(n) = 23 + 5 = 28
[[8,5,4][2,6,0][7,3,1]] - f(n) = 23 + 7 = 30
[[8,5,4][0,2,6][7,3,1]] - Already visited Node!
[[8,5,4][2,3,6][7,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,4][8,0,1][7,6,3]]
Generated Nodes:
[[5,0,4][8,2,1][7,6,3]] - f(n) = 23 + 7 = 30
[[5,2,4][8,1,0][7,6,3]] - f(n) = 23 + 6 = 29
[[5,2,4][0,8,1][7,6,3]] - f(n) = 23 + 6 = 29
[[5,2,4][8,6,1][7,0,3]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,8][1,3,5][6,0,4]]
Generated Nodes:
[[7,2,8][1,0,5][6,3,4]] - f(n) = 22 + 7 = 29
[[7,2,8][1,3,5][6,4,0]] - f(n) = 22 + 7 = 29
[[7,2,8][1,3,5][0,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,8][3,6,0][1,4,5]]
Generated Nodes:
[[7,2,0][3,6,8][1,4,5]] - f(n) = 22 + 7 = 29
[[7,2,8][3,0,6][1,4,5]] - f(n) = 22 + 6 = 28
[[7,2,8][3,6,5][1,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,8][0,6,5][3,1,4]]
```

```
Generated Nodes:
[[0,2,8][7,6,5][3,1,4]] - f(n) = 22 + 7 = 29
[[7,2,8][6,0,5][3,1,4]] - f(n) = 22 + 7 = 29
[[7,2,8][3,6,5][0,1,4]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,4][5,7,6][1,3,8]]
Generated Nodes:
[[2,0,4][5,7,6][1,3,8]] - f(n) = 23 + 7 = 30
[[5,2,4][0,7,6][1,3,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][1,7,6][0,3,8]]
Generated Nodes:
[[5,2,4][0,7,6][1,3,8]] - Already visited Node!
[[5,2,4][1,7,6][3,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,7,5][4,6,2][1,8,3]]
Generated Nodes:
[[7,0,5][4,6,2][1,8,3]] - Already visited Node!
[[4,7,5][0,6,2][1,8,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,6,5][4,0,2][1,8,3]]
Generated Nodes:
[[7,0,5][4,6,2][1,8,3]] - Already visited Node!
[[7,6,5][4,2,0][1,8,3]] - f(n) = 23 + 6 = 29
[[7,6,5][0,4,2][1,8,3]] - f(n) = 23 + 7 = 30
[[7,6,5][4,8,2][1,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,6][3,5,8][0,1,4]]
Generated Nodes:
[[7,2,6][0,5,8][3,1,4]] - f(n) = 23 + 6 = 29
[[7,2,6][3,5,8][1,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,8][4,6,2][7,3,1]]
Generated Nodes:
[[5,0,8][4,6,2][7,3,1]] - Already visited Node!
[[4,5,8][0,6,2][7,3,1]] - f(n) = 23 + 7 = 30
```

Node Chosen for Level 23 - [[5,6,8][4,0,2][7,3,1]]

```
Generated Nodes:
```

```
_____
```

```
[[5,0,8][4,6,2][7,3,1]] - Already visited Node! [[5,6,8][4,2,0][7,3,1]] - f(n) = 23 + 6 = 29
```

$$[[5,6,8][0,4,2][7,3,1]] - f(n) = 23 + 7 = 30$$

[[5,6,8][4,3,2][7,0,1]] - f(n) = 23 + 6 = 29

Node Chosen for Level 23 - [[5,8,2][4,0,1][7,6,3]]

Generated Nodes:

```
[[5,0,2][4,8,1][7,6,3]] - f(n) = 23 + 6 = 29
```

$$[[5,8,2][4,1,0][7,6,3]] - f(n) = 23 + 6 = 29$$

$$[[5,8,2][0,4,1][7,6,3]] - f(n) = 23 + 7 = 30$$

[[5,8,2][4,6,1][7,0,3]] - Already visited Node!

Node Chosen for Level 22 - [[3,0,4][2,7,5][1,8,6]]

Generated Nodes:

$$[[3,4,0][2,7,5][1,8,6]] - f(n) = 22 + 7 = 29$$

 $[[0,3,4][2,7,5][1,8,6]] - f(n) = 22 + 7 = 29$
 $[[3,7,4][2,0,5][1,8,6]] - Already visited Node!$

Node Chosen for Level 22 - [[7,2,4][0,3,8][1,6,5]]

Generated Nodes:

```
[[0,2,4][7,3,8][1,6,5]] - f(n) = 22 + 7 = 29

[[7,2,4][3,0,8][1,6,5]] - Already visited Node!

[[7,2,4][1,3,8][0,6,5]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[7,2,4][3,6,8][1,0,5]]

Generated Nodes:

```
[[7,2,4][3,0,8][1,6,5]] - Already visited Node!
[[7,2,4][3,6,8][1,5,0]] - Already visited Node!
[[7,2,4][3,6,8][0,1,5]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 23 - [[7,2,4][1,0,6][5,3,8]]

Generated Nodes:

```
[[7,0,4][1,2,6][5,3,8]] - f(n) = 23 + 7 = 30

[[7,2,4][1,6,0][5,3,8]] - f(n) = 23 + 7 = 30

[[7,2,4][0,1,6][5,3,8]] - f(n) = 23 + 6 = 29

[[7,2,4][1,3,6][5,0,8]] - Already visited Node!
```

Node Chosen for Level 23 - [[7,2,6][4,0,3][8,1,5]]

```
Generated Nodes:
[[7,0,6][4,2,3][8,1,5]] - f(n) = 23 + 7 = 30
[[7,2,6][4,3,0][8,1,5]] - Already visited Node!
[[7,2,6][0,4,3][8,1,5]] - f(n) = 23 + 7 = 30
[[7,2,6][4,1,3][8,0,5]] - f(n) =
                                  23 + 6 = 29
Node Chosen for Level 22 - [[3,0,7][1,5,2][8,6,4]]
Generated Nodes:
[[3,7,0][1,5,2][8,6,4]] - Already visited Node!
[[0,3,7][1,5,2][8,6,4]] - f(n) = 22 + 7 = 29
[[3,5,7][1,0,2][8,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 21 - [[0,8,7][5,1,2][3,6,4]]
Generated Nodes:
[[8,0,7][5,1,2][3,6,4]] - Already visited Node!
[[5,8,7][0,1,2][3,6,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,1,7][5,0,2][3,6,4]]
Generated Nodes:
[[8,0,7][5,1,2][3,6,4]] - Already visited Node!
[[8,1,7][5,2,0][3,6,4]] - f(n) = 21 + 8 = 29
[[8,1,7][0,5,2][3,6,4]] - f(n) = 21 + 7 = 28
[[8,1,7][5,6,2][3,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,2][8,6,1][5,3,4]]
Generated Nodes:
[[7,0,2][8,6,1][5,3,4]] - f(n) = 21 + 8 = 29
[[8,7,2][0,6,1][5,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,2][6,0,1][5,3,4]]
Generated Nodes:
[[8,0,2][6,7,1][5,3,4]] - f(n) = 21 + 8 = 29
[[8,7,2][6,1,0][5,3,4]] - f(n) =
                                  21 + 8 = 29
[[8,7,2][0,6,1][5,3,4]] - Already visited Node!
[[8,7,2][6,3,1][5,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 22 - [[7,3,5][4,2,0][8,1,6]]
Generated Nodes:
```

[[7,3,0][4,2,5][8,1,6]] - f(n) = 22 + 7 = 29

```
[[7,3,5][4,0,2][8,1,6]] - Already visited Node!
[[7,3,5][4,2,6][8,1,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,3,5][4,1,2][8,0,6]]
Generated Nodes:
[[7,3,5][4,0,2][8,1,6]] - Already visited Node!
[[7,3,5][4,1,2][8,6,0]] - f(n) = 22 + 7 = 29
[[7,3,5][4,1,2][0,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[7,2,4][8,0,6][5,1,3]]
Generated Nodes:
[[7,0,4][8,2,6][5,1,3]] - f(n) =
                                  23 + 7 = 30
[[7,2,4][8,6,0][5,1,3]] - f(n) =
                                  23 + 7 = 30
[[7,2,4][0,8,6][5,1,3]] - f(n) = 23 + 6 = 29
[[7,2,4][8,1,6][5,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,4][8,1,6][5,3,0]]
Generated Nodes:
[[7,2,4][8,1,0][5,3,6]] - f(n) = 23 + 7 = 30
[[7,2,4][8,1,6][5,0,3]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][3,7,8][4,0,1]]
Generated Nodes:
[[5,2,6][3,0,8][4,7,1]] - f(n) = 22 + 7 = 29
[[5,2,6][3,7,8][4,1,0]] - f(n) = 22 + 7 = 29
[[5,2,6][3,7,8][0,4,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][7,4,0][3,1,8]]
Generated Nodes:
[[5,2,0][7,4,6][3,1,8]] - Already visited Node!
[[5,2,6][7,0,4][3,1,8]] - f(n) = 22 + 7 = 29
[[5,2,6][7,4,8][3,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,5][0,6,2][4,8,1]]
Generated Nodes:
[[0,7,5][3,6,2][4,8,1]] - Already visited Node!
[[3,7,5][6,0,2][4,8,1]] - f(n) = 22 + 7 = 29
[[3,7,5][4,6,2][0,8,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,6,5][3,2,0][4,8,1]]
```

```
Generated Nodes:
[[7,6,0][3,2,5][4,8,1]] - f(n) = 22 + 7 = 29
[[7,6,5][3,0,2][4,8,1]] - Already visited Node!
[[7,6,5][3,2,1][4,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,6,5][0,3,2][4,8,1]]
Generated Nodes:
[[0,6,5][7,3,2][4,8,1]] - f(n) = 22 + 7 = 29
[[7,6,5][3,0,2][4,8,1]] - Already visited Node!
[[7,6,5][4,3,2][0,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][8,7,4][3,0,1]]
Generated Nodes:
[[5,2,6][8,0,4][3,7,1]] - f(n) = 22 + 7 = 29
[[5,2,6][8,7,4][3,1,0]] - f(n) = 22 + 7 = 29
[[5,2,6][8,7,4][0,3,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][7,3,0][8,1,4]]
Generated Nodes:
[[5,2,0][7,3,6][8,1,4]] - f(n) = 22 + 6 = 28
[[5,2,6][7,0,3][8,1,4]] - f(n) = 22 + 7 = 29
[[5,2,6][7,3,4][8,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,6][7,1,0][8,4,3]]
Generated Nodes:
[[5,2,0][7,1,6][8,4,3]] - Already visited Node!
[[5,2,6][7,0,1][8,4,3]] - Already visited Node!
[[5,2,6][7,1,3][8,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,6][0,7,1][8,4,3]]
Generated Nodes:
[[0,2,6][5,7,1][8,4,3]] - f(n) = 22 + 7 = 29
[[5,2,6][7,0,1][8,4,3]] - Already visited Node!
[[5,2,6][8,7,1][0,4,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,6][3,8,0][4,1,5]]
```

Generated Nodes:

[[7,2,0][3,8,6][4,1,5]] - f(n) = 22 + 6 = 28

```
[[7,2,6][3,0,8][4,1,5]] - f(n) = 22 + 7 = 29
[[7,2,6][3,8,5][4,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,6][0,8,4][3,1,5]]
Generated Nodes:
[[0,2,6][7,8,4][3,1,5]] - f(n) = 22 + 7 = 29
[[7,2,6][8,0,4][3,1,5]] - Already visited Node!
[[7,2,6][3,8,4][0,1,5]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,6][8,1,4][3,0,5]]
Generated Nodes:
[[7,2,6][8,0,4][3,1,5]] - Already visited Node!
[[7,2,6][8,1,4][3,5,0]] - Already visited Node!
[[7,2,6][8,1,4][0,3,5]] - f(n) = 22 + 7 = 29
Node Chosen for Level 21 - [[7,5,0][2,8,4][3,1,6]]
Generated Nodes:
[[7,0,5][2,8,4][3,1,6]] - f(n) = 21 + 8 = 29
[[7,5,4][2,8,0][3,1,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,4][2,1,8][3,6,0]]
Generated Nodes:
[[7,5,4][2,1,0][3,6,8]] - f(n) = 21 + 8 = 29
[[7,5,4][2,1,8][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,4][2,1,8][0,3,6]]
Generated Nodes:
[[7,5,4][0,1,8][2,3,6]] - f(n) = 21 + 8 = 29
[[7,5,4][2,1,8][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,4][3,0,8][1,2,6]]
Generated Nodes:
[[7,0,4][3,5,8][1,2,6]] - f(n) =
                                  21 + 7 = 28
[[7,5,4][3,8,0][1,2,6]] - f(n) =
                                  21 + 8 = 29
[[7,5,4][0,3,8][1,2,6]] - f(n) =
                                  21 + 8 = 29
[[7,5,4][3,2,8][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,4][3,2,8][1,6,0]]
Generated Nodes:
```

```
[[7,5,4][3,2,0][1,6,8]] - f(n) = 21 + 8 = 29
[[7,5,4][3,2,8][1,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,2][8,4,6][5,3,1]]
Generated Nodes:
[[7,2,0][8,4,6][5,3,1]] - f(n) = 22 + 6 = 28
[[0,7,2][8,4,6][5,3,1]] - Already visited Node!
[[7,4,2][8,0,6][5,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,3,7][0,4,2][1,8,6]]
Generated Nodes:
[[0,3,7][5,4,2][1,8,6]] - Already visited Node!
[[5,3,7][4,0,2][1,8,6]] - f(n) = 22 + 6 = 28
[[5,3,7][1,4,2][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,4,7][5,2,0][1,8,6]]
Generated Nodes:
[[3,4,0][5,2,7][1,8,6]] - f(n) = 22 + 7 = 29
[[3,4,7][5,0,2][1,8,6]] - Already visited Node!
[[3,4,7][5,2,6][1,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,2,1][3,8,0][6,4,5]]
Generated Nodes:
[[7,2,0][3,8,1][6,4,5]] - f(n) = 22 + 7 = 29
[[7,2,1][3,0,8][6,4,5]] - f(n) = 22 + 7 = 29
[[7,2,1][3,8,5][6,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,1][6,3,5][8,0,4]]
Generated Nodes:
[[7,2,1][6,0,5][8,3,4]] - Already visited Node!
[[7,2,1][6,3,5][8,4,0]] - f(n) = 22 + 7 = 29
[[7,2,1][6,3,5][0,8,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,2,4][8,1,0][3,6,5]]
Generated Nodes:
[[7,2,0][8,1,4][3,6,5]] - f(n) = 22 + 7 = 29
[[7,2,4][8,0,1][3,6,5]] - f(n) = 22 + 7 = 29
[[7,2,4][8,1,5][3,6,0]] - Already visited Node!
```

```
Node Chosen for Level 22 - [[7,2,4][0,1,3][8,6,5]]
Generated Nodes:
[[0,2,4][7,1,3][8,6,5]] - f(n) = 22 + 7 = 29
[[7,2,4][1,0,3][8,6,5]] - Already visited Node!
[[7,2,4][8,1,3][0,6,5]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,2,4][1,6,3][8,0,5]]
Generated Nodes:
[[7,2,4][1,0,3][8,6,5]] - Already visited Node!
[[7,2,4][1,6,3][8,5,0]] - Already visited Node!
[[7,2,4][1,6,3][0,8,5]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,4,7][5,2,0][8,3,6]]
Generated Nodes:
[[1,4,0][5,2,7][8,3,6]] - f(n) = 22 + 7 = 29
[[1,4,7][5,0,2][8,3,6]] - Already visited Node!
[[1,4,7][5,2,6][8,3,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,4,7][5,3,2][8,0,6]]
Generated Nodes:
[[1,4,7][5,0,2][8,3,6]] - Already visited Node!
[[1,4,7][5,3,2][8,6,0]] - f(n) = 22 + 7 = 29
[[1,4,7][5,3,2][0,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,0,7][5,3,2][8,6,4]]
Generated Nodes:
[[1,7,0][5,3,2][8,6,4]] - Already visited Node!
[[0,1,7][5,3,2][8,6,4]] - f(n) = 22 + 8 = 30
[[1,3,7][5,0,2][8,6,4]] - f(n) =
                                  22 + 7 = 29
Node Chosen for Level 22 - [[1,0,2][5,7,3][8,6,4]]
Generated Nodes:
[[1,2,0][5,7,3][8,6,4]] - f(n) = 22 + 6 = 28
[[0,1,2][5,7,3][8,6,4]] - f(n) = 22 + 8 = 30
[[1,7,2][5,0,3][8,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[1,7,2][5,6,3][8,0,4]]
Generated Nodes:
```

```
[[1,7,2][5,0,3][8,6,4]] - Already visited Node!
[[1,7,2][5,6,3][8,4,0]] - f(n) = 22 + 7 = 29
[[1,7,2][5,6,3][0,8,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[0,3,2][5,7,6][4,8,1]]
Generated Nodes:
[[3,0,2][5,7,6][4,8,1]] - Already visited Node!
[[5,3,2][0,7,6][4,8,1]] - Already visited Node!
Node Chosen for Level 22 - [[7,6,5][4,2,1][8,0,3]]
Generated Nodes:
[[7,6,5][4,0,1][8,2,3]] - f(n) = 22 + 7 = 29
[[7,6,5][4,2,1][8,3,0]] - Already visited Node!
[[7,6,5][4,2,1][0,8,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,6,5][4,3,0][8,1,2]]
Generated Nodes:
[[7,6,0][4,3,5][8,1,2]] - f(n) = 22 + 7 = 29
[[7,6,5][4,0,3][8,1,2]] - f(n) = 22 + 7 = 29
[[7,6,5][4,3,2][8,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,5][4,1,2][8,6,3]]
Generated Nodes:
[[7,5,0][4,1,2][8,6,3]] - Already visited Node!
[[0,7,5][4,1,2][8,6,3]] - f(n) = 22 + 7 = 29
[[7,1,5][4,0,2][8,6,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,3,2][0,7,6][1,4,8]]
Generated Nodes:
[[0,3,2][5,7,6][1,4,8]] - f(n) = 22 + 7 = 29
[[5,3,2][7,0,6][1,4,8]] - Already visited Node!
[[5,3,2][1,7,6][0,4,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,2][0,1,6][4,3,8]]
Generated Nodes:
[[0,5,2][7,1,6][4,3,8]] - f(n) = 22 + 7 = 29
[[7,5,2][1,0,6][4,3,8]] - Already visited Node!
[[7,5,2][4,1,6][0,3,8]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,2][0,7,6][3,1,8]]
```

```
Generated Nodes:
[[0,4,2][5,7,6][3,1,8]] - f(n) = 22 + 7 = 29
[[5,4,2][7,0,6][3,1,8]] - Already visited Node!
[[5,4,2][3,7,6][0,1,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,4,2][7,1,6][3,0,8]]
Generated Nodes:
[[5,4,2][7,0,6][3,1,8]] - Already visited Node!
[[5,4,2][7,1,6][3,8,0]] - f(n) = 22 + 6 = 28
[[5,4,2][7,1,6][0,3,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 21 - [[8,5,0][6,7,2][3,4,1]]
Generated Nodes:
[[8,0,5][6,7,2][3,4,1]] - Already visited Node!
[[8,5,2][6,7,0][3,4,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,8,5][6,7,2][3,4,1]]
Generated Nodes:
[[8,0,5][6,7,2][3,4,1]] - Already visited Node!
[[6,8,5][0,7,2][3,4,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,0][6,2,5][3,4,1]]
Generated Nodes:
[[8,0,7][6,2,5][3,4,1]] - f(n) = 21 + 8 = 29
[[8,7,5][6,2,0][3,4,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][6,2,1][3,4,0]]
Generated Nodes:
[[8,7,5][6,2,0][3,4,1]] - Already visited Node!
[[8,7,5][6,2,1][3,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,5][6,4,2][3,1,0]]
Generated Nodes:
[[8,7,5][6,4,0][3,1,2]] - f(n) = 21 + 8 = 29
[[8,7,5][6,4,2][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][6,4,2][0,3,1]]
```

```
Generated Nodes:
[[8,7,5][0,4,2][6,3,1]] - f(n) = 21 + 8 = 29
[[8,7,5][6,4,2][3,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][3,0,2][4,6,1]]
Generated Nodes:
[[8,0,5][3,7,2][4,6,1]] - f(n) = 21 + 8 = 29
[[8,7,5][3,2,0][4,6,1]] - f(n) = 21 + 8 = 29
[[8,7,5][0,3,2][4,6,1]] - f(n) = 21 + 8 = 29
[[8,7,5][3,6,2][4,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][3,6,2][4,1,0]]
Generated Nodes:
[[8,7,5][3,6,0][4,1,2]] - f(n) = 21 + 8 = 29
[[8,7,5][3,6,2][4,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,6,5][8,0,1][3,2,4]]
Generated Nodes:
[[7,0,5][8,6,1][3,2,4]] - f(n) = 21 + 8 = 29
[[7,6,5][8,1,0][3,2,4]] - f(n) = 21 + 8 = 29
[[7,6,5][0,8,1][3,2,4]] - f(n) = 21 + 8 = 29
[[7,6,5][8,2,1][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,6,5][8,2,1][0,3,4]]
Generated Nodes:
[[7,6,5][0,2,1][8,3,4]] - f(n) = 21 + 8 = 29
[[7,6,5][8,2,1][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[6,5,0][7,8,2][3,4,1]]
Generated Nodes:
[[6,0,5][7,8,2][3,4,1]] - Already visited Node!
[[6,5,2][7,8,0][3,4,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[6,8,5][7,0,2][3,4,1]]
Generated Nodes:
[[6,0,5][7,8,2][3,4,1]] - Already visited Node!
[[6,8,5][7,2,0][3,4,1]] - f(n) = 21 + 8 = 29
[[6,8,5][0,7,2][3,4,1]] - f(n) = 21 + 8 = 29
[[6,8,5][7,4,2][3,0,1]] - f(n) = 21 + 8 = 29
```

```
Node Chosen for Level 21 - [[7,6,5][3,8,2][4,1,0]]
Generated Nodes:
[[7,6,5][3,8,0][4,1,2]] - f(n) = 21 + 8 = 29
[[7,6,5][3,8,2][4,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,6,0][8,4,5][3,1,2]]
Generated Nodes:
[[7,0,6][8,4,5][3,1,2]] - f(n) = 21 + 8 = 29
[[7,6,5][8,4,0][3,1,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,6,5][8,0,4][3,1,2]]
Generated Nodes:
[[7,0,5][8,6,4][3,1,2]] - f(n) = 21 + 8 = 29
[[7,6,5][8,4,0][3,1,2]] - Already visited Node!
[[7,6,5][0,8,4][3,1,2]] - f(n) = 21 + 8 = 29
[[7,6,5][8,1,4][3,0,2]] - f(n) =
                                  21 + 8 = 29
Node Chosen for Level 21 - [[0,6,5][7,4,2][8,3,1]]
Generated Nodes:
[[6,0,5][7,4,2][8,3,1]] - f(n) = 21 + 8 = 29
[[7,6,5][0,4,2][8,3,1]] - Already visited Node!
Node Chosen for Level 21 - [[8,5,2][3,0,7][1,4,6]]
Generated Nodes:
[[8,0,2][3,5,7][1,4,6]] - f(n) = 21 + 7 = 28
[[8,5,2][3,7,0][1,4,6]] - Already visited Node!
[[8,5,2][0,3,7][1,4,6]] - f(n) = 21 + 8 = 29
[[8,5,2][3,4,7][1,0,6]] - f(n) =
                                  21 + 8 = 29
Node Chosen for Level 21 - [[3,8,5][7,0,2][1,4,6]]
Generated Nodes:
[[3,0,5][7,8,2][1,4,6]] - f(n) = 21 + 8 = 29
[[3,8,5][7,2,0][1,4,6]] - f(n) =
                                  21 + 8 = 29
[[3,8,5][0,7,2][1,4,6]] - Already visited Node!
[[3,8,5][7,4,2][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[3,8,5][1,7,2][0,4,6]]
```

Generated Nodes:

```
[[3,8,5][0,7,2][1,4,6]] - Already visited Node!
[[3,8,5][1,7,2][4,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,8,7][3,2,5][1,4,6]]
Generated Nodes:
[[8,0,7][3,2,5][1,4,6]] - Already visited Node!
[[3,8,7][0,2,5][1,4,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,0][8,3,2][1,4,6]]
Generated Nodes:
[[7,0,5][8,3,2][1,4,6]] - Already visited Node!
[[7,5,2][8,3,0][1,4,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,3,5][8,0,2][1,4,6]]
Generated Nodes:
[[7,0,5][8,3,2][1,4,6]] - Already visited Node!
[[7,3,5][8,2,0][1,4,6]] - f(n) = 21 + 8 = 29
[[7,3,5][0,8,2][1,4,6]] - f(n) = 21 + 8 = 29
[[7,3,5][8,4,2][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,5][1,3,2][4,6,0]]
Generated Nodes:
[[8,7,5][1,3,0][4,6,2]] - f(n) = 21 + 8 = 29
[[8,7,5][1,3,2][4,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,8,7][3,4,5][1,6,2]]
Generated Nodes:
[[8,0,7][3,4,5][1,6,2]] - Already visited Node!
[[3,8,7][0,4,5][1,6,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,4,7][3,0,5][1,6,2]]
Generated Nodes:
[[8,0,7][3,4,5][1,6,2]] - Already visited Node!
[[8,4,7][3,5,0][1,6,2]] - f(n) = 21 + 7 = 28
[[8,4,7][0,3,5][1,6,2]] - f(n) = 21 + 8 = 29
[[8,4,7][3,6,5][1,0,2]] - f(n) =
                                  21 + 8 = 29
Node Chosen for Level 21 - [[8,5,0][3,7,4][1,6,2]]
```

```
Generated Nodes:
[[8,0,5][3,7,4][1,6,2]] - Already visited Node!
[[8,5,4][3,7,0][1,6,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,8,5][3,7,4][1,6,2]]
Generated Nodes:
[[8,0,5][3,7,4][1,6,2]] - Already visited Node!
[[3,8,5][0,7,4][1,6,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,5][8,3,4][1,6,2]]
Generated Nodes:
[[7,0,5][8,3,4][1,6,2]] - f(n) = 21 + 8 = 29
[[8,7,5][0,3,4][1,6,2]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][1,3,4][0,6,2]]
Generated Nodes:
[[8,7,5][0,3,4][1,6,2]] - Already visited Node!
[[8,7,5][1,3,4][6,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,5][3,6,4][1,2,0]]
Generated Nodes:
[[8,7,5][3,6,0][1,2,4]] - f(n) = 21 + 8 = 29
[[8,7,5][3,6,4][1,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][3,6,4][0,1,2]]
Generated Nodes:
[[8,7,5][0,6,4][3,1,2]] - f(n) = 21 + 8 = 29
[[8,7,5][3,6,4][1,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[8,4,0][2,7,5][3,1,6]]
Generated Nodes:
[[8,0,4][2,7,5][3,1,6]] - Already visited Node!
[[8,4,5][2,7,0][3,1,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,8,4][2,7,5][3,1,6]]
Generated Nodes:
[[8,0,4][2,7,5][3,1,6]] - Already visited Node!
```

```
[[2,8,4][0,7,5][3,1,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,4][2,1,5][3,6,0]]
Generated Nodes:
[[8,7,4][2,1,0][3,6,5]] - f(n) = 21 + 8 = 29
[[8,7,4][2,1,5][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,4][2,1,5][0,3,6]]
Generated Nodes:
[[8,7,4][0,1,5][2,3,6]] - f(n) = 21 + 8 = 29
[[8,7,4][2,1,5][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,4][3,0,5][1,2,6]]
Generated Nodes:
[[8,0,4][3,7,5][1,2,6]] - f(n) = 21 + 8 = 29
[[8,7,4][3,5,0][1,2,6]] - f(n) = 21 + 7 = 28

[[8,7,4][0,3,5][1,2,6]] - f(n) = 21 + 8 = 29
[[8,7,4][3,2,5][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,4][3,2,5][1,6,0]]
Generated Nodes:
[[8,7,4][3,2,0][1,6,5]] - f(n) = 21 + 8 = 29
[[8,7,4][3,2,5][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[4,5,2][3,7,8][0,1,6]]
Generated Nodes:
[[4,5,2][0,7,8][3,1,6]] - Already visited Node!
[[4,5,2][3,7,8][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,5,2][7,1,8][3,6,0]]
Generated Nodes:
[[4,5,2][7,1,0][3,6,8]] - f(n) = 21 + 8 = 29
[[4,5,2][7,1,8][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[4,5,2][7,1,8][0,3,6]]
Generated Nodes:
[[4,5,2][0,1,8][7,3,6]] - f(n) = 21 + 7 = 28
[[4,5,2][7,1,8][3,0,6]] - Already visited Node!
```

```
Node Chosen for Level 21 - [[0,4,8][7,2,5][3,1,6]]
Generated Nodes:
[[4,0,8][7,2,5][3,1,6]] - Already visited Node!
[[7,4,8][0,2,5][3,1,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,8,5][3,0,2][1,7,6]]
Generated Nodes:
[[4,0,5][3,8,2][1,7,6]] - f(n) = 21 + 8 = 29
[[4,8,5][3,2,0][1,7,6]] - f(n) =
                                  21 + 8 = 29
[[4,8,5][0,3,2][1,7,6]] - f(n) = 21 + 8 = 29
[[4,8,5][3,7,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[4,8,5][3,7,2][1,6,0]]
Generated Nodes:
[[4,8,5][3,7,0][1,6,2]] - f(n) = 21 + 8 = 29
[[4,8,5][3,7,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[4,8,0][7,1,5][3,6,2]]
Generated Nodes:
[[4,0,8][7,1,5][3,6,2]] - f(n) = 21 + 8 = 29
[[4,8,5][7,1,0][3,6,2]] - Already visited Node!
Node Chosen for Level 21 - [[4,8,5][7,0,1][3,6,2]]
Generated Nodes:
[[4,0,5][7,8,1][3,6,2]] - Already visited Node!
[[4,8,5][7,1,0][3,6,2]] - Already visited Node!
[[4,8,5][0,7,1][3,6,2]] - f(n) = 21 + 8 = 29
[[4,8,5][7,6,1][3,0,2]] - f(n) =
                                  21 + 8 = 29
Node Chosen for Level 21 - [[0,7,4][3,8,5][1,6,2]]
Generated Nodes:
[[7,0,4][3,8,5][1,6,2]] - Already visited Node!
[[3,7,4][0,8,5][1,6,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,8,4][3,0,5][1,6,2]]
Generated Nodes:
[[7,0,4][3,8,5][1,6,2]] - Already visited Node!
```

```
[[7,8,4][3,5,0][1,6,2]] - f(n) = 21 + 7 = 28
[[7,8,4][0,3,5][1,6,2]] - f(n) = 21 + 8 = 29
[17,8,4][3,6,5][1,0,2] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,0][3,4,8][1,6,2]]
Generated Nodes:
[[7,0,5][3,4,8][1,6,2]] - Already visited Node!
[[7,5,8][3,4,0][1,6,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,5][3,4,8][1,6,2]]
Generated Nodes:
[[7,0,5][3,4,8][1,6,2]] - Already visited Node!
[[3,7,5][0,4,8][1,6,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,4,5][7,3,8][1,6,2]]
Generated Nodes:
[[4,0,5][7,3,8][1,6,2]] - f(n) = 21 + 8 = 29
[[7,4,5][0,3,8][1,6,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][1,3,8][0,6,2]]
Generated Nodes:
[[7,4,5][0,3,8][1,6,2]] - Already visited Node!
[[7,4,5][1,3,8][6,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,4,5][3,6,8][1,2,0]]
Generated Nodes:
[[7,4,5][3,6,0][1,2,8]] - f(n) = 21 + 8 = 29
[[7,4,5][3,6,8][1,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][3,6,8][0,1,2]]
Generated Nodes:
[[7,4,5][0,6,8][3,1,2]] - f(n) = 21 + 8 = 29
[[7,4,5][3,6,8][1,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,4][1,0,5][3,6,2]]
Generated Nodes:
[[8,0,4][1,7,5][3,6,2]] - f(n) = 21 + 8 = 29
[[8,7,4][1,5,0][3,6,2]] - f(n) = 21 + 7 = 28
```

```
[[8,7,4][0,1,5][3,6,2]] - Already visited Node!
[[8,7,4][1,6,5][3,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,4][3,1,5][0,6,2]]
Generated Nodes:
[[8,7,4][0,1,5][3,6,2]] - Already visited Node!
[[8,7,4][3,1,5][6,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,1,4][7,8,5][3,6,2]]
Generated Nodes:
[[1,0,4][7,8,5][3,6,2]] - f(n) = 21 + 7 = 28
[[7,1,4][0,8,5][3,6,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,4][3,8,5][0,6,2]]
Generated Nodes:
[[7,1,4][0,8,5][3,6,2]] - Already visited Node!
[[7,1,4][3,8,5][6,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,1,4][8,6,5][3,2,0]]
Generated Nodes:
[[7,1,4][8,6,0][3,2,5]] - f(n) = 21 + 8 = 29
[[7,1,4][8,6,5][3,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,4][8,6,5][0,3,2]]
Generated Nodes:
[[7,1,4][0,6,5][8,3,2]] - f(n) = 21 + 8 = 29
[[7,1,4][8,6,5][3,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,1][8,0,4][3,6,2]]
Generated Nodes:
[[7,0,1][8,5,4][3,6,2]] - f(n) = 21 + 7 = 28
[[7,5,1][8,4,0][3,6,2]] - Already visited Node!
[[7,5,1][0,8,4][3,6,2]] - f(n) = 21 + 8 = 29
[[7,5,1][8,6,4][3,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,1][8,4,2][3,6,0]]
Generated Nodes:
[[7,5,1][8,4,0][3,6,2]] - Already visited Node!
```

```
[[7,5,1][8,4,2][3,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,5][3,4,1][0,6,2]]
Generated Nodes:
[[8,7,5][0,4,1][3,6,2]] - Already visited Node!
[[8,7,5][3,4,1][6,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,5,0][7,8,1][3,6,2]]
Generated Nodes:
[[4,0,5][7,8,1][3,6,2]] - Already visited Node!
[[4,5,1][7,8,0][3,6,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,8,5][7,0,1][3,6,2]]
Generated Nodes:
[[4,0,5][7,8,1][3,6,2]] - Already visited Node!
[[4,8,5][7,1,0][3,6,2]] - Already visited Node! [[4,8,5][0,7,1][3,6,2]] - f(n) = 21 + 8 = 29
[[4,8,5][7,6,1][3,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,4,5][3,8,1][6,2,0]]
Generated Nodes:
[[7,4,5][3,8,0][6,2,1]] - f(n) = 21 + 8 = 29
[[7,4,5][3,8,1][6,0,2]] - Already visited Node!
Node Chosen for Level 21 - [[0,4,5][7,6,1][8,3,2]]
Generated Nodes:
[[4,0,5][7,6,1][8,3,2]] - f(n) = 21 + 8 = 29
[[7,4,5][0,6,1][8,3,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][6,0,1][8,3,2]]
Generated Nodes:
[[7,0,5][6,4,1][8,3,2]] - f(n) = 21 + 8 = 29
[[7,4,5][6,1,0][8,3,2]] - f(n) = 21 + 8 = 29
[[7,4,5][0,6,1][8,3,2]] - Already visited Node!
[[7,4,5][6,3,1][8,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,5,2][7,0,1][8,3,6]]
Generated Nodes:
```

```
[[4,0,2][7,5,1][8,3,6]] - f(n) = 21 + 7 = 28
[[4,5,2][7,1,0][8,3,6]] - Already visited Node!
[[4,5,2][0,7,1][8,3,6]] - f(n) = 21 + 8 = 29
[[4,5,2][7,3,1][8,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,1,0][7,2,5][8,3,6]]
Generated Nodes:
[[4,0,1][7,2,5][8,3,6]] - f(n) = 21 + 8 = 29
[[4,1,5][7,2,0][8,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[4,1,5][8,7,2][0,3,6]]
Generated Nodes:
[[4,1,5][0,7,2][8,3,6]] - Already visited Node!
[[4,1,5][8,7,2][3,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,1,5][7,3,2][8,6,0]]
Generated Nodes:
[[4,1,5][7,3,0][8,6,2]] - f(n) = 21 + 8 = 29
[[4,1,5][7,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,0][1,3,5][8,6,2]]
Generated Nodes:
[[7,0,4][1,3,5][8,6,2]] - f(n) = 21 + 8 = 29
[[7,4,5][1,3,0][8,6,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][1,0,3][8,6,2]]
Generated Nodes:
[[7,0,5][1,4,3][8,6,2]] - f(n) = 21 + 8 = 29
[[7,4,5][1,3,0][8,6,2]] - Already visited Node!
[[7,4,5][0,1,3][8,6,2]] - f(n) = 21 + 8 = 29
[[7,4,5][1,6,3][8,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,8][3,0,2][1,4,6]]
Generated Nodes:
[[7,0,8][3,5,2][1,4,6]] - f(n) = 21 + 7 = 28
[[7,5,8][3,2,0][1,4,6]] - f(n) = 21 + 8 = 29
[[7,5,8][0,3,2][1,4,6]] - f(n) =
                                  21 + 8 = 29
[[7,5,8][3,4,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,8][3,4,2][1,6,0]]
```

```
Generated Nodes:
[[7,5,8][3,4,0][1,6,2]] - f(n) = 21 + 8 = 29
[[7,5,8][3,4,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[4,8,0][5,7,2][3,1,6]]
Generated Nodes:
[[4,0,8][5,7,2][3,1,6]] - Already visited Node!
[[4,8,2][5,7,0][3,1,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[4,7,8][5,0,2][3,1,6]]
Generated Nodes:
[[4,0,8][5,7,2][3,1,6]] - Already visited Node!
[[4,7,8][5,2,0][3,1,6]] - f(n) = 21 + 8 = 29
[[4,7,8][0,5,2][3,1,6]] - Already visited Node!
[[4,7,8][5,1,2][3,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,4,8][3,0,2][1,7,6]]
Generated Nodes:
[[5,0,8][3,4,2][1,7,6]] - Already visited Node!
[[5,4,8][3,2,0][1,7,6]] - f(n) = 21 + 8 = 29
[[5,4,8][0,3,2][1,7,6]] - f(n) = 21 + 8 = 29
[[5,4,8][3,7,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,8][3,7,2][1,6,0]]
Generated Nodes:
[[5,4,8][3,7,0][1,6,2]] - f(n) = 21 + 8 = 29
[[5,4,8][3,7,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,0][7,1,8][3,6,2]]
Generated Nodes:
[[5,0,4][7,1,8][3,6,2]] - f(n) = 21 + 8 = 29
[[5,4,8][7,1,0][3,6,2]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,8][7,0,1][3,6,2]]
```

Generated Nodes :

[[5,0,8][7,4,1][3,6,2]] - f(n) = 21 + 8 = 29 [[5,4,8][7,1,0][3,6,2]] - Already visited Node![[5,4,8][0,7,1][3,6,2]] - f(n) = 21 + 8 = 29

```
[[5,4,8][7,6,1][3,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,8,7][5,4,2][3,1,6]]
Generated Nodes:
[[8,0,7][5,4,2][3,1,6]] - Already visited Node!
[[5,8,7][0,4,2][3,1,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,4,7][5,0,2][3,1,6]]
Generated Nodes:
[[8,0,7][5,4,2][3,1,6]] - Already visited Node!
[[8,4,7][5,2,0][3,1,6]] - f(n) = 21 + 8 = 29
[[8,4,7][0,5,2][3,1,6]] - f(n) = 21 + 7 = 28
[[8,4,7][5,1,2][3,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,2][8,1,4][5,3,6]]
Generated Nodes:
[[7,0,2][8,1,4][5,3,6]] - f(n) = 21 + 8 = 29
[[8,7,2][0,1,4][5,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,2][1,0,4][5,3,6]]
Generated Nodes:
[[8,0,2][1,7,4][5,3,6]] - f(n) = 21 + 8 = 29
[[8,7,2][1,4,0][5,3,6]] - f(n) = 21 + 8 = 29
[[8,7,2][0,1,4][5,3,6]] - Already visited Node!
[[8,7,2][1,3,4][5,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[3,5,2][8,0,4][1,7,6]]
Generated Nodes:
[[3,0,2][8,5,4][1,7,6]] - f(n) = 21 + 7 = 28
[[3,5,2][8,4,0][1,7,6]] - f(n) = 21 + 8 = 29
[[3,5,2][0,8,4][1,7,6]] - Already visited Node!
[[3,5,2][8,7,4][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[3,5,2][1,8,4][0,7,6]]
Generated Nodes:
[[3,5,2][0,8,4][1,7,6]] - Already visited Node!
[[3,5,2][1,8,4][7,0,6]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[0,5,8][3,4,2][1,7,6]]
```

```
Generated Nodes:
[[5,0,8][3,4,2][1,7,6]] - Already visited Node!
[[3,5,8][0,4,2][1,7,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,4,8][3,0,2][1,7,6]]
Generated Nodes:
[[5,0,8][3,4,2][1,7,6]] - Already visited Node!
[[5,4,8][3,2,0][1,7,6]] - f(n) = 21 + 8 = 29
[[5,4,8][0,3,2][1,7,6]] - f(n) = 21 + 8 = 29
[[5,4,8][3,7,2][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,3,2][5,0,4][1,7,6]]
Generated Nodes:
[[8,0,2][5,3,4][1,7,6]] - Already visited Node!
[[8,3,2][5,4,0][1,7,6]] - f(n) = 21 + 8 = 29
[[8,3,2][0,5,4][1,7,6]] - f(n) = 21 + 7 = 28
[[8,3,2][5,7,4][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,8][3,7,2][1,6,4]]
Generated Nodes:
[[5,0,8][3,7,2][1,6,4]] - Already visited Node!
[[3,5,8][0,7,2][1,6,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,7,8][3,0,2][1,6,4]]
Generated Nodes:
[[5,0,8][3,7,2][1,6,4]] - Already visited Node!
[[5,7,8][3,2,0][1,6,4]] - f(n) = 21 + 8 = 29
[[5,7,8][0,3,2][1,6,4]] - f(n) = 21 + 8 = 29
[[5,7,8][3,6,2][1,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,2][3,8,7][1,6,4]]
Generated Nodes:
[[5,0,2][3,8,7][1,6,4]] - Already visited Node!
[[3,5,2][0,8,7][1,6,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,8,2][5,3,7][1,6,4]]
Generated Nodes:
[[8,0,2][5,3,7][1,6,4]] - f(n) = 21 + 8 = 29
[[5,8,2][0,3,7][1,6,4]] - Already visited Node!
```

```
Node Chosen for Level 21 - [[5,8,2][1,3,7][0,6,4]]
Generated Nodes:
[[5,8,2][0,3,7][1,6,4]] - Already visited Node!
[[5,8,2][1,3,7][6,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,8,2][3,6,7][1,4,0]]
Generated Nodes:
[[5,8,2][3,6,0][1,4,7]] - f(n) = 21 + 8 = 29
[[5,8,2][3,6,7][1,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,6,7][0,1,4]]
Generated Nodes:
[[5,8,2][0,6,7][3,1,4]] - f(n) = 21 + 8 = 29
[[5,8,2][3,6,7][1,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,8][1,0,2][3,6,4]]
Generated Nodes:
[[7,0,8][1,5,2][3,6,4]] - f(n) = 21 + 7 = 28
[[7,5,8][1,2,0][3,6,4]] - f(n) =
                                  21 + 8 = 29
[[7,5,8][0,1,2][3,6,4]] - Already visited Node!
[[7,5,8][1,6,2][3,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,8][3,1,2][0,6,4]]
Generated Nodes:
[[7,5,8][0,1,2][3,6,4]] - Already visited Node!
[[7,5,8][3,1,2][6,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,1,0][7,2,8][3,6,4]]
Generated Nodes:
[[5,0,1][7,2,8][3,6,4]] - Already visited Node!
[[5,1,8][7,2,0][3,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,1,8][7,2,4][3,6,0]]
Generated Nodes:
[[5,1,8][7,2,0][3,6,4]] - Already visited Node!
[[5,1,8][7,2,4][3,0,6]] - f(n) = 21 + 8 = 29
```

```
Node Chosen for Level 21 - [[0,1,8][5,7,2][3,6,4]]
Generated Nodes:
[[1,0,8][5,7,2][3,6,4]] - f(n) = 21 + 7 = 28
[[5,1,8][0,7,2][3,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,1,8][3,7,2][0,6,4]]
Generated Nodes:
[[5,1,8][0,7,2][3,6,4]] - Already visited Node!
[[5,1,8][3,7,2][6,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,1,8][7,6,2][3,4,0]]
Generated Nodes:
[[5,1,8][7,6,0][3,4,2]] - f(n) = 21 + 8 = 29
[[5,1,8][7,6,2][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,1,8][7,6,2][0,3,4]]
Generated Nodes:
[[5,1,8][0,6,2][7,3,4]] - f(n) = 21 + 7 = 28
[[5,1,8][7,6,2][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,0,1][6,7,4]]
Generated Nodes:
[[5,0,2][3,8,1][6,7,4]] - f(n) = 21 + 8 = 29
[[5,8,2][3,1,0][6,7,4]] - f(n) = 21 + 8 = 29
[[5,8,2][0,3,1][6,7,4]] - f(n) = 21 + 8 = 29
[[5,8,2][3,7,1][6,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,7,1][6,4,0]]
Generated Nodes:
[[5,8,2][3,7,0][6,4,1]] - f(n) = 21 + 8 = 29
[[5,8,2][3,7,1][6,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[3,5,0][8,7,2][1,6,4]]
Generated Nodes:
[[3,0,5][8,7,2][1,6,4]] - Already visited Node!
[[3,5,2][8,7,0][1,6,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,3,5][8,7,2][1,6,4]]
```

```
Generated Nodes:
[[3,0,5][8,7,2][1,6,4]] - Already visited Node!
[[8,3,5][0,7,2][1,6,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[3,7,0][8,2,5][1,6,4]]
Generated Nodes:
[[3,0,7][8,2,5][1,6,4]] - f(n) = 21 + 8 = 29
[[3,7,5][8,2,0][1,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,5][8,2,4][1,6,0]]
Generated Nodes:
[[3,7,5][8,2,0][1,6,4]] - Already visited Node!
[[3,7,5][8,2,4][1,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[3,7,5][8,6,2][1,4,0]]
Generated Nodes:
[[3,7,5][8,6,0][1,4,2]] - f(n) = 21 + 8 = 29
[[3,7,5][8,6,2][1,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,5][8,6,2][0,1,4]]
Generated Nodes:
[[3,7,5][0,6,2][8,1,4]] - f(n) = 21 + 8 = 29
[[3,7,5][8,6,2][1,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[3,7,5][1,8,2][6,4,0]]
Generated Nodes:
[[3,7,5][1,8,0][6,4,2]] - f(n) = 21 + 8 = 29
[[3,7,5][1,8,2][6,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,8][3,2,5][1,6,4]]
Generated Nodes:
[[7,0,8][3,2,5][1,6,4]] - Already visited Node!
[[3,7,8][0,2,5][1,6,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,8,5][3,0,4][1,2,6]]
Generated Nodes:
```

```
[[7,0,5][3,8,4][1,2,6]] - f(n) =
                                  21 + 8 = 29
[[7,8,5][3,4,0][1,2,6]] - f(n) =
                                  21 + 8 = 29
[[7,8,5][0,3,4][1,2,6]] - f(n) =
                                  21 + 8 = 29
[[7,8,5][3,2,4][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,8,5][3,2,4][0,1,6]]
Generated Nodes:
[[7,8,5][0,2,4][3,1,6]] - f(n) = 21 + 8 = 29
[[7,8,5][3,2,4][1,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,5,0][7,3,2][1,6,4]]
Generated Nodes:
[[8,0,5][7,3,2][1,6,4]] - Already visited Node!
[[8,5,2][7,3,0][1,6,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,3,5][7,0,2][1,6,4]]
Generated Nodes:
[[8,0,5][7,3,2][1,6,4]] - Already visited Node!
[[8,3,5][7,2,0][1,6,4]] - f(n) = 21 + 8 = 29
[[8,3,5][0,7,2][1,6,4]] - f(n) = 21 + 8 = 29
[[8,3,5][7,6,2][1,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,8,5][1,0,2][6,3,4]]
Generated Nodes:
[[7,0,5][1,8,2][6,3,4]] - f(n) = 21 + 8 = 29
[[7,8,5][1,2,0][6,3,4]] - f(n) =
                                  21 + 8 = 29
[[7,8,5][0,1,2][6,3,4]] - f(n) = 21 + 8 = 29
[[7,8,5][1,3,2][6,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,8,5][1,3,2][6,4,0]]
Generated Nodes:
[[7,8,5][1,3,0][6,4,2]] - f(n) = 21 + 8 = 29
[[7,8,5][1,3,2][6,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,8,0][3,6,5][1,4,2]]
Generated Nodes:
[[7,0,8][3,6,5][1,4,2]] - f(n) = 21 + 8 = 29
[[7,8,5][3,6,0][1,4,2]] - Already visited Node!
Node Chosen for Level 21 - [[0,8,5][7,6,2][3,1,4]]
```

```
Generated Nodes:
[[8,0,5][7,6,2][3,1,4]] - f(n) = 21 + 8 = 29
[[7,8,5][0,6,2][3,1,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,8,5][6,0,2][3,1,4]]
Generated Nodes:
[[7,0,5][6,8,2][3,1,4]] - f(n) = 21 + 8 = 29
[[7,8,5][6,2,0][3,1,4]] - f(n) =
                                  21 + 8 = 29
[[7,8,5][0,6,2][3,1,4]] - Already visited Node!
[[7,8,5][6,1,2][3,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,3,0][7,8,2][1,6,4]]
Generated Nodes:
[[5,0,3][7,8,2][1,6,4]] - f(n) = 21 + 7 = 28
[[5,3,2][7,8,0][1,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[0,3,2][5,7,8][1,6,4]]
Generated Nodes:
[[3,0,2][5,7,8][1,6,4]] - Already visited Node!
[[5,3,2][0,7,8][1,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,2][1,7,8][0,6,4]]
Generated Nodes:
[[5,3,2][0,7,8][1,6,4]] - Already visited Node!
[[5,3,2][1,7,8][6,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,3,2][7,6,8][1,4,0]]
Generated Nodes:
[[5,3,2][7,6,0][1,4,8]] - f(n) = 21 + 8 = 29
[[5,3,2][7,6,8][1,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,3,2][7,6,8][0,1,4]]
Generated Nodes:
[[5,3,2][0,6,8][7,1,4]] - f(n) = 21 + 7 = 28
[[5,3,2][7,6,8][1,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,0][1,8,2][6,3,4]]
```

```
Generated Nodes:
[[7,0,5][1,8,2][6,3,4]] - f(n) = 21 + 8 = 29
[[7,5,2][1,8,0][6,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][1,8,4][6,3,0]]
Generated Nodes:
[[7,5,2][1,8,0][6,3,4]] - Already visited Node!
[[7,5,2][1,8,4][6,0,3]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,2][7,1,8][6,3,4]]
Generated Nodes:
[[5,0,2][7,1,8][6,3,4]] - f(n) = 21 + 8 = 29
[[7,5,2][0,1,8][6,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][6,1,8][0,3,4]]
Generated Nodes:
[[7,5,2][0,1,8][6,3,4]] - Already visited Node!
[[7,5,2][6,1,8][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,0][1,3,2][6,4,8]]
Generated Nodes:
[[7,0,5][1,3,2][6,4,8]] - f(n) = 21 + 8 = 29
[[7,5,2][1,3,0][6,4,8]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][1,0,3][6,4,8]]
Generated Nodes:
[[7,0,2][1,5,3][6,4,8]] - f(n) = 21 + 7 = 28
[[7,5,2][1,3,0][6,4,8]] - Already visited Node!
[[7,5,2][0,1,3][6,4,8]] - f(n) = 21 + 8 = 29
[[7,5,2][1,4,3][6,0,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,5][3,6,2][1,4,8]]
Generated Nodes:
[[7,0,5][3,6,2][1,4,8]] - Already visited Node!
[[3,7,5][0,6,2][1,4,8]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,6,5][3,0,2][1,4,8]]
Generated Nodes:
```

```
[[7,0,5][3,6,2][1,4,8]] - Already visited Node!
[[7,6,5][3,2,0][1,4,8]] - f(n) = 21 + 8 = 29
[[7,6,5][0,3,2][1,4,8]] - f(n) = 21 + 8 = 29
[[7,6,5][3,4,2][1,0,8]] - f(n) =
                                21 + 8 = 29
Node Chosen for Level 21 - [[5,6,2][7,0,8][3,1,4]]
Generated Nodes:
[[5,0,2][7,6,8][3,1,4]] - Already visited Node!
[[5,6,2][7,8,0][3,1,4]] - f(n) = 21 + 8 = 29
[[5,6,2][0,7,8][3,1,4]] - f(n) =
                                  21 + 8 = 29
[[5,6,2][7,1,8][3,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,0][6,8,2][3,1,4]]
Generated Nodes:
[[7,0,5][6,8,2][3,1,4]] - f(n) = 21 + 8 = 29
[[7,5,2][6,8,0][3,1,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][6,8,4][3,1,0]]
Generated Nodes:
[[7,5,2][6,8,0][3,1,4]] - Already visited Node!
[[7,5,2][6,8,4][3,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,2][6,1,8][3,4,0]]
Generated Nodes:
[[7,5,2][6,1,0][3,4,8]] - f(n) = 21 + 8 = 29
[[7,5,2][6,1,8][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][6,1,8][0,3,4]]
Generated Nodes:
[[7,5,2][0,1,8][6,3,4]] - Already visited Node!
[[7,5,2][6,1,8][3,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[8,5,2][1,0,7][3,6,4]]
Generated Nodes:
[[8,0,2][1,5,7][3,6,4]] - f(n) = 21 + 7 = 28
[[8,5,2][1,7,0][3,6,4]] - Already visited Node!
[[8,5,2][0,1,7][3,6,4]] - f(n) = 21 + 8 = 29
[[8,5,2][1,6,7][3,0,4]] - f(n) = 21 + 8 = 29
```

```
Node Chosen for Level 21 - [[8,5,2][1,7,4][3,6,0]]
Generated Nodes:
[[8,5,2][1,7,0][3,6,4]] - Already visited Node!
[[8,5,2][1,7,4][3,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,8,7][1,2,5][3,6,4]]
Generated Nodes:
[[8,0,7][1,2,5][3,6,4]] - Already visited Node!
[[1,8,7][0,2,5][3,6,4]] - f(n) = 21 + 7 = 28
Node Chosen for Level 21 - [[8,7,5][1,0,4][3,2,6]]
Generated Nodes:
[[8,0,5][1,7,4][3,2,6]] - f(n) = 21 + 8 = 29
[[8,7,5][1,4,0][3,2,6]] - f(n) = 21 + 8 = 29
[[8,7,5][0,1,4][3,2,6]] - f(n) = 21 + 8 = 29
[[8,7,5][1,2,4][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][1,2,4][0,3,6]]
Generated Nodes:
[[8,7,5][0,2,4][1,3,6]] - f(n) = 21 + 8 = 29
[[8,7,5][1,2,4][3,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,0][1,6,5][3,4,2]]
Generated Nodes:
[[8,0,7][1,6,5][3,4,2]] - f(n) = 21 + 8 = 29
[[8,7,5][1,6,0][3,4,2]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,5][8,6,2][1,3,4]]
Generated Nodes:
[[7,0,5][8,6,2][1,3,4]] - f(n) = 21 + 8 = 29
[[8,7,5][0,6,2][1,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][6,0,2][1,3,4]]
Generated Nodes:
[[8,0,5][6,7,2][1,3,4]] - f(n) = 21 + 8 = 29
[[8,7,5][6,2,0][1,3,4]] - f(n) = 21 + 8 = 29
[[8,7,5][0,6,2][1,3,4]] - Already visited Node!
[[8,7,5][6,3,2][1,0,4]] - f(n) = 21 + 8 = 29
```

```
Node Chosen for Level 21 - [[8,5,0][3,7,2][6,1,4]]
Generated Nodes:
[[8,0,5][3,7,2][6,1,4]] - Already visited Node!
[[8,5,2][3,7,0][6,1,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,8,5][3,7,2][6,1,4]]
Generated Nodes:
[[8,0,5][3,7,2][6,1,4]] - Already visited Node!
[[3,8,5][0,7,2][6,1,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,0][3,2,5][6,1,4]]
Generated Nodes:
[[8,0,7][3,2,5][6,1,4]] - f(n) = 21 + 8 = 29
[[8,7,5][3,2,0][6,1,4]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][3,2,4][6,1,0]]
Generated Nodes:
[[8,7,5][3,2,0][6,1,4]] - Already visited Node!
[[8,7,5][3,2,4][6,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,5][8,3,2][6,1,4]]
Generated Nodes:
[[7,0,5][8,3,2][6,1,4]] - f(n) = 21 + 8 = 29
[[8,7,5][0,3,2][6,1,4]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][6,3,2][0,1,4]]
Generated Nodes:
[[8,7,5][0,3,2][6,1,4]] - Already visited Node!
[[8,7,5][6,3,2][1,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,0][3,1,5][6,4,2]]
Generated Nodes:
[[8,0,7][3,1,5][6,4,2]] - f(n) = 21 + 8 = 29
[[8,7,5][3,1,0][6,4,2]] - Already visited Node!
Node Chosen for Level 21 - [[8,7,5][3,0,1][6,4,2]]
```

```
Generated Nodes:
[[8,0,5][3,7,1][6,4,2]] - f(n) = 21 + 8 = 29
[[8,7,5][3,1,0][6,4,2]] - Already visited Node!
[[8,7,5][0,3,1][6,4,2]] - f(n) = 21 + 8 = 29
[[8,7,5][3,4,1][6,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,1][2,0,5][3,6,4]]
Generated Nodes:
[[8,0,1][2,7,5][3,6,4]] - f(n) = 21 + 8 = 29
[[8,7,1][2,5,0][3,6,4]] - f(n) = 21 + 7 = 28
[[8,7,1][0,2,5][3,6,4]] - Already visited Node!
[[8,7,1][2,6,5][3,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[8,7,1][3,2,5][0,6,4]]
Generated Nodes:
[[8,7,1][0,2,5][3,6,4]] - Already visited Node!
[[8,7,1][3,2,5][6,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,0][8,1,4][3,2,6]]
Generated Nodes:
[[7,0,5][8,1,4][3,2,6]] - Already visited Node!
[[7,5,4][8,1,0][3,2,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,5][8,1,4][3,2,6]]
Generated Nodes:
[[7,0,5][8,1,4][3,2,6]] - Already visited Node!
[[8,7,5][0,1,4][3,2,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,1,0][8,4,5][3,2,6]]
Generated Nodes:
[[7,0,1][8,4,5][3,2,6]] - f(n) = 21 + 8 = 29
[[7,1,5][8,4,0][3,2,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,1,5][7,8,4][3,2,6]]
Generated Nodes:
[[1,0,5][7,8,4][3,2,6]] - f(n) = 21 + 7 = 28
[[7,1,5][0,8,4][3,2,6]] - Already visited Node!
```

Node Chosen for Level 21 - [[7,1,5][3,8,4][0,2,6]]

```
Generated Nodes:
[[7,1,5][0,8,4][3,2,6]] - Already visited Node!
[[7,1,5][3,8,4][2,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,1,5][7,2,4][8,3,6]]
Generated Nodes:
[[1,0,5][7,2,4][8,3,6]] - f(n) = 21 + 7 = 28
[[7,1,5][0,2,4][8,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,5][2,0,4][8,3,6]]
Generated Nodes:
[[7,0,5][2,1,4][8,3,6]] - f(n) = 21 + 8 = 29
[[7,1,5][2,4,0][8,3,6]] - f(n) = 21 + 8 = 29
[[7,1,5][0,2,4][8,3,6]] - Already visited Node!
[[7,1,5][2,3,4][8,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,1,0][3,8,5][6,4,2]]
Generated Nodes:
[[7,0,1][3,8,5][6,4,2]] - f(n) = 21 + 8 = 29
[[7,1,5][3,8,0][6,4,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,5][3,0,8][6,4,2]]
Generated Nodes:
[[7,0,5][3,1,8][6,4,2]] - f(n) = 21 + 8 = 29
[[7,1,5][3,8,0][6,4,2]] - Already visited Node!
[[7,1,5][0,3,8][6,4,2]] - f(n) = 21 + 8 = 29
[[7,1,5][3,4,8][6,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,1][8,6,5][3,4,2]]
Generated Nodes:
[[7,0,1][8,6,5][3,4,2]] - Already visited Node!
[[8,7,1][0,6,5][3,4,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,6,1][8,0,5][3,4,2]]
Generated Nodes:
[[7,0,1][8,6,5][3,4,2]] - Already visited Node!
[[7,6,1][8,5,0][3,4,2]] - f(n) = 21 + 7 = 28
```

[[7,6,1][0,8,5][3,4,2]] - f(n) = 21 + 8 = 29

```
[[7,6,1][8,4,5][3,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,7,5][6,1,2][8,3,4]]
Generated Nodes:
[[7,0,5][6,1,2][8,3,4]] - Already visited Node!
[[6,7,5][0,1,2][8,3,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,1,0][6,2,5][8,3,4]]
Generated Nodes:
[[7,0,1][6,2,5][8,3,4]] - f(n) = 21 + 8 = 29
[[7,1,5][6,2,0][8,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,1,5][6,2,4][8,3,0]]
Generated Nodes:
[[7,1,5][6,2,0][8,3,4]] - Already visited Node!
[[7,1,5][6,2,4][8,0,3]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,1,5][6,3,2][8,4,0]]
Generated Nodes:
[[7,1,5][6,3,0][8,4,2]] - f(n) = 21 + 8 = 29
[[7,1,5][6,3,2][8,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,0,1][6,7,4]]
Generated Nodes:
[[5,0,2][3,8,1][6,7,4]] - f(n) = 21 + 8 = 29
[[5,8,2][3,1,0][6,7,4]] - f(n) = 21 + 8 = 29
[[5,8,2][0,3,1][6,7,4]] - f(n) = 21 + 8 = 29
[[5,8,2][3,7,1][6,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,8,2][3,7,1][6,4,0]]
Generated Nodes:
[[5,8,2][3,7,0][6,4,1]] - f(n) = 21 + 8 = 29
[[5,8,2][3,7,1][6,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,5][3,8,2][6,4,1]]
Generated Nodes:
[[7,0,5][3,8,2][6,4,1]] - Already visited Node!
[[3,7,5][0,8,2][6,4,1]] - f(n) = 21 + 8 = 29
```

```
Node Chosen for Level 21 - [[7,8,5][3,0,2][6,4,1]]
Generated Nodes:
[[7,0,5][3,8,2][6,4,1]] - Already visited Node!
[[7,8,5][3,2,0][6,4,1]] - f(n) = 21 + 8 = 29
[[7,8,5][0,3,2][6,4,1]] - f(n) = 21 + 8 = 29
[[7,8,5][3,4,2][6,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,2][7,3,8][6,4,1]]
Generated Nodes:
[[5,0,2][7,3,8][6,4,1]] - f(n) = 21 + 8 = 29
[[7,5,2][0,3,8][6,4,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][6,3,8][0,4,1]]
Generated Nodes:
[[7,5,2][0,3,8][6,4,1]] - Already visited Node!
[[7,5,2][6,3,8][4,0,1]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,2][3,4,8][6,1,0]]
Generated Nodes:
[[7,5,2][3,4,0][6,1,8]] - f(n) = 21 + 8 = 29
[[7,5,2][3,4,8][6,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][3,4,8][0,6,1]]
Generated Nodes:
[[7,5,2][0,4,8][3,6,1]] - f(n) = 21 + 8 = 29
[[7,5,2][3,4,8][6,0,1]] - Already visited Node!
Node Chosen for Level 21 - [[5,6,0][7,1,2][8,3,4]]
Generated Nodes:
[[5,0,6][7,1,2][8,3,4]] - f(n) = 21 + 8 = 29
[[5,6,2][7,1,0][8,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,6,2][7,1,4][8,3,0]]
Generated Nodes:
[[5,6,2][7,1,0][8,3,4]] - Already visited Node!
[[5,6,2][7,1,4][8,0,3]] - f(n) = 21 + 8 = 29
```

```
Node Chosen for Level 21 - [[0,6,2][5,7,1][8,3,4]]
Generated Nodes:
[[6,0,2][5,7,1][8,3,4]] - f(n) = 21 + 8 = 29
[[5,6,2][0,7,1][8,3,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,6,2][8,7,1][0,3,4]]
Generated Nodes:
[[5,6,2][0,7,1][8,3,4]] - Already visited Node!
[[5,6,2][8,7,1][3,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,6,2][7,3,1][8,4,0]]
Generated Nodes:
[[5,6,2][7,3,0][8,4,1]] - f(n) = 21 + 8 = 29
[[5,6,2][7,3,1][8,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[0,7,5][6,1,2][8,3,4]]
Generated Nodes:
[[7,0,5][6,1,2][8,3,4]] - Already visited Node!
[[6,7,5][0,1,2][8,3,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,5,2][6,0,4][8,1,3]]
Generated Nodes:
[[7,0,2][6,5,4][8,1,3]] - f(n) = 21 + 7 = 28
[[7,5,2][6,4,0][8,1,3]] - f(n) = 21 + 8 = 29
[[7,5,2][0,6,4][8,1,3]] - f(n) = 21 + 8 = 29
[[7,5,2][6,1,4][8,0,3]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,0][6,3,2][8,4,1]]
Generated Nodes:
[[7,0,5][6,3,2][8,4,1]] - f(n) = 21 + 8 = 29
[[7,5,2][6,3,0][8,4,1]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][6,0,3][8,4,1]]
Generated Nodes:
[[7,0,2][6,5,3][8,4,1]] - f(n) = 21 + 7 = 28
[[7,5,2][6,3,0][8,4,1]] - Already visited Node!
[[7,5,2][0,6,3][8,4,1]] - f(n) = 21 + 8 = 29
[[7,5,2][6,4,3][8,0,1]] - f(n) = 21 + 8 = 29
```

```
Node Chosen for Level 21 - [[7,5,1][8,4,2][0,3,6]]
Generated Nodes:
[[7,5,1][0,4,2][8,3,6]] - Already visited Node!
[[7,5,1][8,4,2][3,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,4,1][5,7,2][8,3,6]]
Generated Nodes:
[[4,0,1][5,7,2][8,3,6]] - f(n) = 21 + 8 = 29
[[5,4,1][0,7,2][8,3,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,4,1][8,7,2][0,3,6]]
Generated Nodes:
[[5,4,1][0,7,2][8,3,6]] - Already visited Node!
[[5,4,1][8,7,2][3,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,4,1][7,3,2][8,6,0]]
Generated Nodes:
[[5,4,1][7,3,0][8,6,2]] - f(n) = 21 + 8 = 29
[[5,4,1][7,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,5,2][8,1,4][3,7,6]]
Generated Nodes:
[[5,0,2][8,1,4][3,7,6]] - Already visited Node!
[[8,5,2][0,1,4][3,7,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,1,0][8,4,2][3,7,6]]
Generated Nodes:
[[5,0,1][8,4,2][3,7,6]] - f(n) = 21 + 8 = 29
[[5,1,2][8,4,0][3,7,6]] - Already visited Node!
Node Chosen for Level 21 - [[0,1,2][5,8,4][3,7,6]]
Generated Nodes:
[[1,0,2][5,8,4][3,7,6]] - f(n) = 21 + 7 = 28
[[5,1,2][0,8,4][3,7,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,1,2][3,8,4][0,7,6]]
```

```
Generated Nodes:
[[5,1,2][0,8,4][3,7,6]] - Already visited Node!
[[5,1,2][3,8,4][7,0,6]] - Already visited Node!
Node Chosen for Level 21 - [[5,1,0][8,7,2][3,6,4]]
Generated Nodes:
[[5,0,1][8,7,2][3,6,4]] - f(n) = 21 + 8 = 29
[[5,1,2][8,7,0][3,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,1,2][8,0,7][3,6,4]]
Generated Nodes:
[[5,0,2][8,1,7][3,6,4]] - f(n) = 21 + 8 = 29
[[5,1,2][8,7,0][3,6,4]] - Already visited Node!
[[5,1,2][0,8,7][3,6,4]] - f(n) = 21 + 8 = 29
[[5,1,2][8,6,7][3,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,5,1][7,3,2][8,6,4]]
Generated Nodes:
[[5,0,1][7,3,2][8,6,4]] - Already visited Node!
[[7,5,1][0,3,2][8,6,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,3,1][7,0,2][8,6,4]]
Generated Nodes:
[[5,0,1][7,3,2][8,6,4]] - Already visited Node!
[[5,3,1][7,2,0][8,6,4]] - f(n) = 21 + 8 = 29
[[5,3,1][0,7,2][8,6,4]] - f(n) = 21 + 8 = 29
[[5,3,1][7,6,2][8,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,1,2][5,7,3][8,6,4]]
Generated Nodes:
[[1,0,2][5,7,3][8,6,4]] - Already visited Node!
[[5,1,2][0,7,3][8,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[5,1,2][8,7,3][0,6,4]]
Generated Nodes:
[[5,1,2][0,7,3][8,6,4]] - Already visited Node!
[[5,1,2][8,7,3][6,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[5,1,2][7,6,3][8,4,0]]
```

```
Generated Nodes:
[[5,1,2][7,6,0][8,4,3]] - Already visited Node!
[[5,1,2][7,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,0][1,3,5][8,6,2]]
Generated Nodes:
[[7,0,4][1,3,5][8,6,2]] - f(n) = 21 + 8 = 29
[[7,4,5][1,3,0][8,6,2]] - Already visited Node!
Node Chosen for Level 21 - [[7,4,5][1,0,3][8,6,2]]
Generated Nodes:
[[7,0,5][1,4,3][8,6,2]] - f(n) = 21 + 8 = 29
[[7,4,5][1,3,0][8,6,2]] - Already visited Node!
[[7,4,5][0,1,3][8,6,2]] - f(n) = 21 + 8 = 29
[[7,4,5][1,6,3][8,0,2]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,3,0][1,2,5][8,6,4]]
Generated Nodes:
[[7,0,3][1,2,5][8,6,4]] - Already visited Node!
[[7,3,5][1,2,0][8,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,3,5][1,2,4][8,6,0]]
Generated Nodes:
[[7,3,5][1,2,0][8,6,4]] - Already visited Node!
[[7,3,5][1,2,4][8,0,6]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[0,3,5][7,1,2][8,6,4]]
Generated Nodes:
[[3,0,5][7,1,2][8,6,4]] - f(n) = 21 + 8 = 29
[[7,3,5][0,1,2][8,6,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,3,5][8,1,2][0,6,4]]
Generated Nodes:
[[7,3,5][0,1,2][8,6,4]] - Already visited Node!
[[7,3,5][8,1,2][6,0,4]] - f(n) = 21 + 8 = 29
Node Chosen for Level 21 - [[7,3,5][1,6,2][8,4,0]]
```

```
Generated Nodes:
[[7,3,5][1,6,0][8,4,2]] - f(n) = 21 + 8 = 29
[[7,3,5][1,6,2][8,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][8,0,3][6,1,4]]
Generated Nodes:
[[7,0,2][8,5,3][6,1,4]] - f(n) = 21 + 7 = 28
[[7,5,2][8,3,0][6,1,4]] - f(n) = 21 + 8 = 29
[[7,5,2][0,8,3][6,1,4]] - f(n) = 21 + 8 = 29
[[7,5,2][8,1,3][6,0,4]] - Already visited Node!
Node Chosen for Level 21 - [[7,5,2][8,1,3][6,4,0]]
Generated Nodes:
[[7,5,2][8,1,0][6,4,3]] - f(n) = 21 + 8 = 29
[[7,5,2][8,1,3][6,0,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,2][3,8,6][4,7,1]]
Generated Nodes:
[[5,2,0][3,8,6][4,7,1]] - f(n) = 22 + 6 = 28
[[0,5,2][3,8,6][4,7,1]] - f(n) = 22 + 7 = 29
[[5,8,2][3,0,6][4,7,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][0,3,6][4,7,1]]
Generated Nodes:
[[0,8,2][5,3,6][4,7,1]] - f(n) = 22 + 7 = 29
[[5,8,2][3,0,6][4,7,1]] - Already visited Node!
[[5,8,2][4,3,6][0,7,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,2][8,4,6][3,7,1]]
Generated Nodes:
[[5,2,0][8,4,6][3,7,1]] - f(n) = 22 + 6 = 28
[[0,5,2][8,4,6][3,7,1]] - f(n) = 22 + 7 = 29
[[5,4,2][8,0,6][3,7,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,2][0,8,6][3,7,1]]
Generated Nodes:
[[0,4,2][5,8,6][3,7,1]] - f(n) = 22 + 7 = 29
[[5,4,2][8,0,6][3,7,1]] - Already visited Node!
```

[[5,4,2][3,8,6][0,7,1]] - f(n) = 22 + 7 = 29

```
Node Chosen for Level 22 - [[5,2,4][0,3,7][1,6,8]]
Generated Nodes:
[[0,2,4][5,3,7][1,6,8]] - f(n) = 22 + 7 = 29
[[5,2,4][3,0,7][1,6,8]] - Already visited Node!
[[5,2,4][1,3,7][0,6,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,4][3,6,7][1,0,8]]
Generated Nodes:
[[5,2,4][3,0,7][1,6,8]] - Already visited Node!
[[5,2,4][3,6,7][1,8,0]] - f(n) = 22 + 6 = 28
[[5,2,4][3,6,7][0,1,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,4][3,7,1][6,0,8]]
Generated Nodes:
[[5,2,4][3,0,1][6,7,8]] - f(n) = 22 + 7 = 29
[[5,2,4][3,7,1][6,8,0]] - f(n) = 22 + 6 = 28
[[5,2,4][3,7,1][0,6,8]] - Already visited Node!
Node Chosen for Level 22 - [[4,5,2][7,3,0][1,8,6]]
Generated Nodes:
[[4,5,0][7,3,2][1,8,6]] - Already visited Node!
[[4,5,2][7,0,3][1,8,6]] - f(n) = 22 + 7 = 29
[[4,5,2][7,3,6][1,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[4,3,5][7,2,0][1,8,6]]
Generated Nodes:
[[4,3,0][7,2,5][1,8,6]] - f(n) = 22 + 7 = 29
[[4,3,5][7,0,2][1,8,6]] - Already visited Node!
[[4,3,5][7,2,6][1,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[4,3,5][0,7,2][1,8,6]]
Generated Nodes:
[[0,3,5][4,7,2][1,8,6]] - Already visited Node!
[[4,3,5][7,0,2][1,8,6]] - Already visited Node!
[[4,3,5][1,7,2][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,0,7][3,5,2][6,4,1]]
Generated Nodes:
```

```
[[8,7,0][3,5,2][6,4,1]] - Already visited Node!
[[0,8,7][3,5,2][6,4,1]] - f(n) = 22 + 7 = 29
[[8,5,7][3,0,2][6,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,5,2][4,1,0][3,6,7]]
Generated Nodes:
[[8,5,0][4,1,2][3,6,7]] - f(n) = 22 + 7 = 29
[[8,5,2][4,0,1][3,6,7]] - f(n) = 22 + 7 = 29
[[8,5,2][4,1,7][3,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[8,1,7][4,6,5][3,0,2]]
Generated Nodes:
[[8,1,7][4,0,5][3,6,2]] - Already visited Node!
[[8,1,7][4,6,5][3,2,0]] - f(n) = 22 + 7 = 29
[[8,1,7][4,6,5][0,3,2]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,5,1][4,7,0][3,6,2]]
Generated Nodes:
[[8,5,0][4,7,1][3,6,2]] - Already visited Node!
[[8,5,1][4,0,7][3,6,2]] - f(n) = 22 + 7 = 29
[[8,5,1][4,7,2][3,6,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,5][3,4,6][2,0,1]]
Generated Nodes:
[[8,7,5][3,0,6][2,4,1]] - f(n) = 22 + 7 = 29
[[8,7,5][3,4,6][2,1,0]] - f(n) = 22 + 7 = 29
[[8,7,5][3,4,6][0,2,1]] - Already visited Node!
Node Chosen for Level 22 - [[4,8,5][0,7,6][3,2,1]]
Generated Nodes:
[[0,8,5][4,7,6][3,2,1]] - Already visited Node!
[[4,8,5][7,0,6][3,2,1]] - Already visited Node!
[[4,8,5][3,7,6][0,2,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,7,5][0,4,6][8,3,1]]
Generated Nodes:
[[0,7,5][2,4,6][8,3,1]] - Already visited Node!
[[2,7,5][4,0,6][8,3,1]] - f(n) = 22 + 6 = 28
[[2,7,5][8,4,6][0,3,1]] - f(n) = 22 + 7 = 29
```

```
Node Chosen for Level 22 - [[5,0,2][3,8,6][4,7,1]]
Generated Nodes:
[[5,2,0][3,8,6][4,7,1]] - f(n) = 22 + 6 = 28
[[0,5,2][3,8,6][4,7,1]] - f(n) = 22 + 7 = 29
[[5,8,2][3,0,6][4,7,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][0,3,6][4,7,1]]
Generated Nodes:
[[0,8,2][5,3,6][4,7,1]] - f(n) = 22 + 7 = 29
[[5,8,2][3,0,6][4,7,1]] - Already visited Node!
[[5,8,2][4,3,6][0,7,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,4][8,1,0][3,7,6]]
Generated Nodes:
[[5,2,0][8,1,4][3,7,6]] - Already visited Node!
[[5,2,4][8,0,1][3,7,6]] - Already visited Node!
[[5,2,4][8,1,6][3,7,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,4][0,8,1][3,7,6]]
Generated Nodes:
[[0,2,4][5,8,1][3,7,6]] - f(n) = 22 + 7 = 29
[[5,2,4][8,0,1][3,7,6]] - Already visited Node!
[[5,2,4][3,8,1][0,7,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,4][8,7,0][3,6,1]]
Generated Nodes:
[[5,2,0][8,7,4][3,6,1]] - f(n) = 22 + 7 = 29
[[5,2,4][8,0,7][3,6,1]] - f(n) = 22 + 7 = 29
[[5,2,4][8,7,1][3,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,4][0,7,3][8,6,1]]
Generated Nodes:
[[0,2,4][5,7,3][8,6,1]] - f(n) = 22 + 7 = 29
[[5,2,4][7,0,3][8,6,1]] - Already visited Node!
[[5,2,4][8,7,3][0,6,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,4][7,6,3][8,0,1]]
Generated Nodes:
```

```
[[5,2,4][7,0,3][8,6,1]] - Already visited Node!
[[5,2,4][7,6,3][8,1,0]] - Already visited Node!
[[5,2,4][7,6,3][0,8,1]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,5,2][0,8,6][4,1,3]]
Generated Nodes:
[[0,5,2][7,8,6][4,1,3]] - f(n) = 22 + 7 = 29
[[7,5,2][8,0,6][4,1,3]] - Already visited Node!
[[7,5,2][4,8,6][0,1,3]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,1][5,4,2][7,3,6]]
Generated Nodes:
[[8,1,0][5,4,2][7,3,6]] - Already visited Node!
[[0,8,1][5,4,2][7,3,6]] - f(n) = 22 + 7 = 29
[[8,4,1][5,0,2][7,3,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,1,2][5,3,0][7,6,4]]
Generated Nodes:
[[8,1,0][5,3,2][7,6,4]] - f(n) = 22 + 7 = 29
[[8,1,2][5,0,3][7,6,4]] - f(n) = 22 + 7 = 29
[[8,1,2][5,3,4][7,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,8][1,2,0][7,3,6]]
Generated Nodes:
[[5,4,0][1,2,8][7,3,6]] - Already visited Node!
[[5,4,8][1,0,2][7,3,6]] - Already visited Node!
[[5,4,8][1,2,6][7,3,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,4,8][1,3,2][7,0,6]]
Generated Nodes:
[[5,4,8][1,0,2][7,3,6]] - Already visited Node!
[[5,4,8][1,3,2][7,6,0]] - f(n) = 22 + 7 = 29
[[5,4,8][1,3,2][0,7,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,8][1,3,2][7,6,4]]
Generated Nodes:
[[5,8,0][1,3,2][7,6,4]] - Already visited Node!
[[0,5,8][1,3,2][7,6,4]] - f(n) = 22 + 7 = 29
[[5,3,8][1,0,2][7,6,4]] - f(n) = 22 + 7 = 29
```

```
Node Chosen for Level 22 - [[5,0,2][1,8,3][7,6,4]]
Generated Nodes:
[[5,2,0][1,8,3][7,6,4]] - f(n) = 22 + 6 = 28
[[0,5,2][1,8,3][7,6,4]] - f(n) =
                                  22 + 7 = 29
[[5,8,2][1,0,3][7,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][0,1,3][7,6,4]]
Generated Nodes:
[[0,8,2][5,1,3][7,6,4]] - f(n) = 22 + 7 = 29
[[5,8,2][1,0,3][7,6,4]] - Already visited Node!
[[5,8,2][7,1,3][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,8,2][1,6,3][7,0,4]]
Generated Nodes:
[[5,8,2][1,0,3][7,6,4]] - Already visited Node!
[[5,8,2][1,6,3][7,4,0]] - f(n) = 22 + 7 = 29
[[5,8,2][1,6,3][0,7,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,7,2][1,5,0][6,4,8]]
Generated Nodes:
[[3,7,0][1,5,2][6,4,8]] - f(n) = 22 + 7 = 29
[[3,7,2][1,0,5][6,4,8]] - f(n) = 22 + 8 = 30
[[3,7,2][1,5,8][6,4,0]] - Already visited Node!
Node Chosen for Level 23 - [[0,3,2][5,7,6][4,8,1]]
Generated Nodes:
[[3,0,2][5,7,6][4,8,1]] - Already visited Node!
[[5,3,2][0,7,6][4,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][8,0,6][1,7,3]]
Generated Nodes:
[[5,0,4][8,2,6][1,7,3]] - f(n) = 23 + 7 = 30
[[5,2,4][8,6,0][1,7,3]] - f(n) = 23 + 7 = 30
[[5,2,4][0,8,6][1,7,3]] - f(n) = 23 + 6 = 29
[[5,2,4][8,7,6][1,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][8,7,6][1,3,0]]
```

Generated Nodes:

```
[[5,2,4][8,7,0][1,3,6]] - f(n) = 23 + 7 = 30
[[5,2,4][8,7,6][1,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[0,4,2][5,7,6][1,8,3]]
Generated Nodes:
[[4,0,2][5,7,6][1,8,3]] - f(n) = 23 + 6 = 29
[[5,4,2][0,7,6][1,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,2][1,7,6][0,8,3]]
Generated Nodes:
[[5,4,2][0,7,6][1,8,3]] - Already visited Node!
[[5,4,2][1,7,6][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,2,8][7,5,4][3,1,6]]
Generated Nodes:
[[2,0,8][7,5,4][3,1,6]] - f(n) = 23 + 7 = 30
[[7,2,8][0,5,4][3,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,5,2][7,3,0][1,8,6]]
Generated Nodes:
[[4,5,0][7,3,2][1,8,6]] - Already visited Node!
[[4,5,2][7,0,3][1,8,6]] - f(n) = 22 + 7 = 29
[[4,5,2][7,3,6][1,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[4,3,5][7,2,0][1,8,6]]
Generated Nodes:
[[4,3,0][7,2,5][1,8,6]] - f(n) = 22 + 7 = 29
[[4,3,5][7,0,2][1,8,6]] - Already visited Node!
[[4,3,5][7,2,6][1,8,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[4,3,5][0,7,2][1,8,6]]
Generated Nodes:
[[0,3,5][4,7,2][1,8,6]] - Already visited Node!
[[4,3,5][7,0,2][1,8,6]] - Already visited Node!
[[4,3,5][1,7,2][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,2,4][5,1,0][3,6,7]]
Generated Nodes:
```

```
[[8,2,0][5,1,4][3,6,7]] - f(n) = 22 + 7 = 29
[[8,2,4][5,0,1][3,6,7]] - f(n) = 22 + 7 = 29
[[8,2,4][5,1,7][3,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[8,2,4][0,1,7][5,3,6]]
Generated Nodes:
[[0,2,4][8,1,7][5,3,6]] - f(n) = 22 + 7 = 29
[[8,2,4][1,0,7][5,3,6]] - f(n) = 22 + 7 = 29
[[8,2,4][5,1,7][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,1][3,7,8][6,0,4]]
Generated Nodes:
[[5,2,1][3,0,8][6,7,4]] - f(n) = 22 + 7 = 29
[[5,2,1][3,7,8][6,4,0]] - f(n) = 22 + 7 = 29
[[5,2,1][3,7,8][0,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,1][7,6,0][3,4,8]]
Generated Nodes:
[[5,2,0][7,6,1][3,4,8]] - f(n) = 22 + 7 = 29
[[5,2,1][7,0,6][3,4,8]] - f(n) = 22 + 6 = 28
[[5,2,1][7,6,8][3,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,5][0,1,2][6,8,4]]
Generated Nodes:
[[0,7,5][3,1,2][6,8,4]] - Already visited Node!
[[3,7,5][1,0,2][6,8,4]] - Already visited Node!
[[3,7,5][6,1,2][0,8,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,3,2][7,1,0][6,8,4]]
Generated Nodes:
[[5,3,0][7,1,2][6,8,4]] - f(n) = 22 + 7 = 29
[[5,3,2][7,0,1][6,8,4]] - Already visited Node!
[[5,3,2][7,1,4][6,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,3,2][0,7,1][6,8,4]]
Generated Nodes:
[[0,3,2][5,7,1][6,8,4]] - f(n) = 22 + 7 = 29
[[5,3,2][7,0,1][6,8,4]] - Already visited Node!
[[5,3,2][6,7,1][0,8,4]] - f(n) = 22 + 7 = 29
```

```
Node Chosen for Level 22 - [[5,1,2][8,7,6][4,0,3]]
Generated Nodes:
[[5,1,2][8,0,6][4,7,3]] - f(n) = 22 + 7 = 29
[[5,1,2][8,7,6][4,3,0]] - f(n) =
                                    22 + 7 = 29
[[5,1,2][8,7,6][0,4,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,0][1,3,4][7,6,8]]
Generated Nodes:
[[5,0,2][1,3,4][7,6,8]] - f(n) = 23 + 7 = 30
[[5,2,4][1,3,0][7,6,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][1,0,3][7,6,8]]
Generated Nodes:
[[5,0,4][1,2,3][7,6,8]] - f(n) = 23 + 7 = 30
[[5,2,4][1,3,0][7,6,8]] - Already visited Node! [[5,2,4][0,1,3][7,6,8]] - f(n) = 23 + 6 = 29
[[5,2,4][1,6,3][7,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[8,4,2][5,3,6][7,1,0]]
Generated Nodes:
[[8,4,2][5,3,0][7,1,6]] - f(n) = 23 + 7 = 30
[[8,4,2][5,3,6][7,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[3,5,2][1,0,4][7,8,6]]
Generated Nodes:
[[3,0,2][1,5,4][7,8,6]] - Already visited Node!
[[3,5,2][1,4,0][7,8,6]] - f(n) = 23 + 6 = 29
[[3,5,2][0,1,4][7,8,6]] - Already visited Node!
[[3,5,2][1,8,4][7,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,1][3,4,2][7,8,6]]
Generated Nodes:
[[5,0,1][3,4,2][7,8,6]] - Already visited Node!
[[3,5,1][0,4,2][7,8,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,4,1][3,0,2][7,8,6]]
Generated Nodes:
```

```
[[5,0,1][3,4,2][7,8,6]] - Already visited Node!
[[5,4,1][3,2,0][7,8,6]] - f(n) = 23 + 6 = 29
[[5,4,1][0,3,2][7,8,6]] - Already visited Node!
[[5,4,1][3,8,2][7,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,2,4][5,3,7][8,6,0]]
Generated Nodes:
[[1,2,4][5,3,0][8,6,7]] - f(n) = 23 + 6 = 29
[[1,2,4][5,3,7][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,0][3,4,2][5,8,6]]
Generated Nodes:
[[1,0,7][3,4,2][5,8,6]] - f(n) = 23 + 6 = 29
[[1,7,2][3,4,0][5,8,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,2][3,5,0][1,6,4]]
Generated Nodes:
[[8,7,0][3,5,2][1,6,4]] - f(n) = 22 + 7 = 29
[[8,7,2][3,0,5][1,6,4]] - f(n) = 22 + 8 = 30
[[8,7,2][3,5,4][1,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[1,5,2][0,7,8][3,6,4]]
Generated Nodes:
[[0,5,2][1,7,8][3,6,4]] - f(n) = 22 + 8 = 30
[[1,5,2][7,0,8][3,6,4]] - Already visited Node!
[[1,5,2][3,7,8][0,6,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,5,2][7,6,8][3,0,4]]
Generated Nodes:
[[1,5,2][7,0,8][3,6,4]] - Already visited Node!
[[1,5,2][7,6,8][3,4,0]] - f(n) = 22 + 7 = 29
[[1,5,2][7,6,8][0,3,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,5,2][7,8,4][3,0,6]]
Generated Nodes:
[[1,5,2][7,0,4][3,8,6]] - f(n) = 22 + 6 = 28
[[1,5,2][7,8,4][3,6,0]] - Already visited Node!
[[1,5,2][7,8,4][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[1,0,8][7,2,5][3,6,4]]
```

```
Generated Nodes:
[[1,8,0][7,2,5][3,6,4]] - Already visited Node!
[[0,1,8][7,2,5][3,6,4]] - f(n) = 22 + 8 = 30
[[1,2,8][7,0,5][3,6,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,8,5][7,2,4][3,0,6]]
```

$$[[1,8,5][7,0,4][3,2,6]] - f(n) = 22 + 7 = 29$$

 $[[1,8,5][7,2,4][3,6,0]] - Already visited Node!$
 $[[1,8,5][7,2,4][0,3,6]] - f(n) = 22 + 7 = 29$

Node Chosen for Level 22 - [[1,8,5][3,7,2][6,0,4]]

Generated Nodes:

```
[[1,8,5][3,0,2][6,7,4]] - f(n) = 22 + 7 = 29
[[1,8,5][3,7,2][6,4,0]] - f(n) = 22 + 7 = 29
[[1,8,5][3,7,2][0,6,4]] - Already visited Node!
```

Node Chosen for Level 22 - [[1,8,5][7,6,0][3,4,2]]

Generated Nodes:

[[1,8,0][7,6,5][3,4,2]] - f(n) = 22 + 7 = 29[[1,8,5][7,0,6][3,4,2]] - f(n) = 22 + 6 = 28[[1,8,5][7,6,2][3,4,0]] - Already visited Node!

Node Chosen for Level 22 - [[6,7,2][8,5,1][3,0,4]]

Generated Nodes:

[[6,7,2][8,0,1][3,5,4]] - f(n) = 22 + 8 = 30[[6,7,2][8,5,1][3,4,0]] - f(n) = 22 + 7 = 29[[6,7,2][8,5,1][0,3,4]] - Already visited Node!

Node Chosen for Level 22 - [[1,0,5][8,7,2][3,4,6]]

Generated Nodes:

[[1,5,0][8,7,2][3,4,6]] - f(n) = 22 + 7 = 29[[0,1,5][8,7,2][3,4,6]] - f(n) = 22 + 8 = 30[[1,7,5][8,0,2][3,4,6]] - Already visited Node!

Node Chosen for Level 22 - [[1,7,5][8,2,0][3,4,6]]

Generated Nodes:

[[1,7,0][8,2,5][3,4,6]] - f(n) = 22 + 7 = 29

```
[[1,7,5][8,0,2][3,4,6]] - Already visited Node!
[[1,7,5][8,2,6][3,4,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,7,5][0,8,2][3,4,6]]
Generated Nodes:
[[0,7,5][1,8,2][3,4,6]] - f(n) = 22 + 8 = 30
[[1,7,5][8,0,2][3,4,6]] - Already visited Node!
[[1,7,5][3,8,2][0,4,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,7,5][8,4,0][3,6,2]]
Generated Nodes:
[[1,7,0][8,4,5][3,6,2]] - f(n) = 22 + 7 = 29
[[1,7,5][8,0,4][3,6,2]] - f(n) = 22 + 7 = 29
[[1,7,5][8,4,2][3,6,0]] - Already visited Node!
Node Chosen for Level 23 - [[3,5,2][4,0,7][1,8,6]]
Generated Nodes:
[[3,0,2][4,5,7][1,8,6]] - f(n) = 23 + 5 = 28
[[3,5,2][4,7,0][1,8,6]] - Already visited Node!
[[3,5,2][0,4,7][1,8,6]] - f(n) = 23 + 7 = 30
[[3,5,2][4,8,7][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,3,7][4,2,5][1,8,6]]
Generated Nodes:
[[3,0,7][4,2,5][1,8,6]] - Already visited Node!
[[4,3,7][0,2,5][1,8,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,0][4,1,7][3,6,5]]
Generated Nodes:
[[8,0,2][4,1,7][3,6,5]] - f(n) = 23 + 7 = 30
[[8,2,7][4,1,0][3,6,5]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,7][4,0,1][3,6,5]]
Generated Nodes:
[[8,0,7][4,2,1][3,6,5]] - f(n) = 23 + 7 = 30
[[8,2,7][4,1,0][3,6,5]] - Already visited Node!
[[8,2,7][0,4,1][3,6,5]] - f(n) = 23 + 7 = 30
[[8,2,7][4,6,1][3,0,5]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[8,2,4][5,3,1][7,6,0]]
```

```
Generated Nodes:
```

```
[[8,2,4][5,3,0][7,6,1]] - f(n) = 23 + 6 = 29
[[8,2,4][5,3,1][7,0,6]] - Already visited Node!
```

Node Chosen for Level 23 - [[0,5,2][1,8,6][7,4,3]]

Generated Nodes:

```
[[5,0,2][1,8,6][7,4,3]] - Already visited Node! [[1,5,2][0,8,6][7,4,3]] - f(n) = 23 + 5 = 28
```

Node Chosen for Level 23 - [[0,8,2][5,1,6][7,4,3]]

Generated Nodes:

$$[[8,0,2][5,1,6][7,4,3]] - f(n) = 23 + 6 = 29$$

 $[[5,8,2][0,1,6][7,4,3]] - Already visited Node!$

Node Chosen for Level 23 - [[0,2,4][8,7,6][5,3,1]]

Generated Nodes:

[[2,0,4][8,7,6][5,3,1]] - f(n) = 23 + 7 = 30[[8,2,4][0,7,6][5,3,1]] - Already visited Node!

Node Chosen for Level 23 - [[8,2,4][7,0,6][5,3,1]]

Generated Nodes:

[[8,0,4][7,2,6][5,3,1]] - f(n) = 23 + 7 = 30 [[8,2,4][7,6,0][5,3,1]] - f(n) = 23 + 7 = 30 [[8,2,4][0,7,6][5,3,1]] - Already visited Node![[8,2,4][7,3,6][5,0,1]] - f(n) = 23 + 6 = 29

Node Chosen for Level 23 - [[1,5,2][4,0,7][8,3,6]]

Generated Nodes:

[[1,0,2][4,5,7][8,3,6]] - f(n) = 23 + 5 = 28 [[1,5,2][4,7,0][8,3,6]] - Already visited Node! [[1,5,2][0,4,7][8,3,6]] - f(n) = 23 + 7 = 30[[1,5,2][4,3,7][8,0,6]] - f(n) = 23 + 6 = 29

Node Chosen for Level 23 - [[1,7,0][4,3,5][8,6,2]]

Generated Nodes:

[[1,0,7][4,3,5][8,6,2]] - f(n) = 23 + 6 = 29[[1,7,5][4,3,0][8,6,2]] - Already visited Node!

```
Node Chosen for Level 23 - [[1,7,5][4,0,3][8,6,2]]
Generated Nodes:
[[1,0,5][4,7,3][8,6,2]] - f(n) = 23 + 6 = 29
[[1,7,5][4,3,0][8,6,2]] - Already visited Node!
[[1,7,5][0,4,3][8,6,2]] - f(n) = 23 + 7 = 30
[[1,7,5][4,6,3][8,0,2]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[3,5,2][0,4,6][7,8,1]]
Generated Nodes:
[[0,5,2][3,4,6][7,8,1]] - Already visited Node!
[[3,5,2][4,0,6][7,8,1]] - f(n) = 24 + 4 = 28
[[3,5,2][7,4,6][0,8,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 22 - [[8,2,1][5,6,7][3,0,4]]
Generated Nodes:
[[8,2,1][5,0,7][3,6,4]] - Already visited Node!
[[8,2,1][5,6,7][3,4,0]] - f(n) = 22 + 7 = 29
[[8,2,1][5,6,7][0,3,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,2,1][5,7,4][3,0,6]]
Generated Nodes:
[[8,2,1][5,0,4][3,7,6]] - f(n) = 22 + 7 = 29
[[8,2,1][5,7,4][3,6,0]] - Already visited Node!
[[8,2,1][5,7,4][0,3,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,8][7,4,6][3,2,1]]
Generated Nodes:
[[5,8,0][7,4,6][3,2,1]] - f(n) = 22 + 7 = 29
[[0,5,8][7,4,6][3,2,1]] - f(n) = 22 + 7 = 29
[[5,4,8][7,0,6][3,2,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,8][0,7,6][3,2,1]]
Generated Nodes:
[[0,4,8][5,7,6][3,2,1]] - f(n) = 22 + 7 = 29
[[5,4,8][7,0,6][3,2,1]] - Already visited Node!
[[5,4,8][3,7,6][0,2,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,0,5][3,7,6][1,2,4]]
```

```
[[8,5,0][3,7,6][1,2,4]] - f(n) = 22 + 7 = 29
[[0,8,5][3,7,6][1,2,4]] - f(n) = 22 + 7 = 29
[[8,7,5][3,0,6][1,2,4]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][0,3,6][1,2,4]]
Generated Nodes:
[[0,7,5][8,3,6][1,2,4]] - f(n) = 22 + 7 = 29
[[8,7,5][3,0,6][1,2,4]] - Already visited Node!
[[8,7,5][1,3,6][0,2,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,5][0,2,6][3,1,4]]
Generated Nodes:
[[0,7,5][8,2,6][3,1,4]] - f(n) = 22 + 7 = 29
[[8,7,5][2,0,6][3,1,4]] - f(n) = 22 + 7 = 29
[[8,7,5][3,2,6][0,1,4]] - Already visited Node!
Node Chosen for Level 22 - [[4,8,5][0,7,6][3,2,1]]
Generated Nodes:
[[0,8,5][4,7,6][3,2,1]] - Already visited Node!
[[4,8,5][7,0,6][3,2,1]] - Already visited Node!
[[4,8,5][3,7,6][0,2,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,5][1,4,6][8,2,3]]
Generated Nodes:
[[7,5,0][1,4,6][8,2,3]] - f(n) = 22 + 7 = 29
[[0,7,5][1,4,6][8,2,3]] - f(n) = 22 + 7 = 29
[[7,4,5][1,0,6][8,2,3]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][0,1,6][8,2,3]]
Generated Nodes:
[[0,4,5][7,1,6][8,2,3]] - f(n) = 22 + 7 = 29
[[7,4,5][1,0,6][8,2,3]] - Already visited Node!
[[7,4,5][8,1,6][0,2,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,5][4,2,8][3,1,6]]
Generated Nodes:
[[7,5,0][4,2,8][3,1,6]] - Already visited Node!
[[0,7,5][4,2,8][3,1,6]] - f(n) = 22 + 7 = 29
[[7,2,5][4,0,8][3,1,6]] - f(n) = 22 + 6 = 28
```

```
Node Chosen for Level 22 - [[7,5,8][4,1,0][3,6,2]]
Generated Nodes:
[[7,5,0][4,1,8][3,6,2]] - f(n) = 22 + 7 = 29
[[7,5,8][4,0,1][3,6,2]] - f(n) =
                                  22 + 7 = 29
[[7,5,8][4,1,2][3,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,8][7,4,6][3,2,1]]
Generated Nodes:
[[5,8,0][7,4,6][3,2,1]] - f(n) = 22 + 7 = 29
[[0,5,8][7,4,6][3,2,1]] - f(n) = 22 + 7 = 29
[[5,4,8][7,0,6][3,2,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,8][0,7,6][3,2,1]]
Generated Nodes:
[[0,4,8][5,7,6][3,2,1]] - f(n) = 22 + 7 = 29
[[5,4,8][7,0,6][3,2,1]] - Already visited Node!
[[5,4,8][3,7,6][0,2,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,2][3,8,6][1,4,7]]
Generated Nodes:
[[5,2,0][3,8,6][1,4,7]] - f(n) = 22 + 6 = 28
[[0,5,2][3,8,6][1,4,7]] - f(n) = 22 + 7 = 29
[[5,8,2][3,0,6][1,4,7]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][0,3,6][1,4,7]]
Generated Nodes:
[[0,8,2][5,3,6][1,4,7]] - f(n) = 22 + 7 = 29
[[5,8,2][3,0,6][1,4,7]] - Already visited Node!
[[5,8,2][1,3,6][0,4,7]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,8,2][0,4,6][3,1,7]]
Generated Nodes:
[[0,8,2][5,4,6][3,1,7]] - f(n) = 22 + 7 = 29
[[5,8,2][4,0,6][3,1,7]] - f(n) = 22 + 6 = 28
[[5,8,2][3,4,6][0,1,7]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,8][0,7,3][1,6,4]]
```

```
[[0,2,8][5,7,3][1,6,4]] - f(n) = 22 + 7 = 29
[[5,2,8][7,0,3][1,6,4]] - Already visited Node!
[[5,2,8][1,7,3][0,6,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,8][7,6,3][1,0,4]]
Generated Nodes:
[[5,2,8][7,0,3][1,6,4]] - Already visited Node!
[[5,2,8][7,6,3][1,4,0]] - f(n) = 22 + 7 = 29
[[5,2,8][7,6,3][0,1,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,8][7,3,4][1,0,6]]
Generated Nodes:
[[5,2,8][7,0,4][1,3,6]] - f(n) = 22 + 7 = 29
[[5,2,8][7,3,4][1,6,0]] - Already visited Node!
[[5,2,8][7,3,4][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,7,5][0,1,2][6,8,4]]
Generated Nodes:
[[0,7,5][3,1,2][6,8,4]] - Already visited Node!
[[3,7,5][1,0,2][6,8,4]] - Already visited Node!
[[3,7,5][6,1,2][0,8,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,1][3,2,5][6,8,4]]
Generated Nodes:
[[7,1,0][3,2,5][6,8,4]] - Already visited Node!
[[0,7,1][3,2,5][6,8,4]] - f(n) = 22 + 7 = 29
[[7,2,1][3,0,5][6,8,4]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][0,1,6][3,4,2]]
Generated Nodes:
[[0,7,5][8,1,6][3,4,2]] - Already visited Node!
[[8,7,5][1,0,6][3,4,2]] - Already visited Node!
[[8,7,5][3,1,6][0,4,2]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,1,5][3,8,6][4,0,2]]
Generated Nodes:
[[7,1,5][3,0,6][4,8,2]] - f(n) = 22 + 6 = 28
[[7,1,5][3,8,6][4,2,0]] - f(n) = 22 + 7 = 29
[[7,1,5][3,8,6][0,4,2]] - Already visited Node!
```

```
Node Chosen for Level 22 - [[7,1,5][0,4,6][8,3,2]]
Generated Nodes:
[[0,1,5][7,4,6][8,3,2]] - f(n) = 22 + 7 = 29
[[7,1,5][4,0,6][8,3,2]] - f(n) = 22 + 6 = 28
[[7,1,5][8,4,6][0,3,2]] - Already visited Node!
Node Chosen for Level 22 - [[5,2,1][7,6,4][8,0,3]]
Generated Nodes:
[[5,2,1][7,0,4][8,6,3]] - f(n) = 22 + 7 = 29
[[5,2,1][7,6,4][8,3,0]] - Already visited Node!
[[5,2,1][7,6,4][0,8,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,0,5][1,4,6][8,2,3]]
Generated Nodes:
[[7,5,0][1,4,6][8,2,3]] - f(n) = 22 + 7 = 29
[[0,7,5][1,4,6][8,2,3]] - f(n) = 22 + 7 = 29
[[7,4,5][1,0,6][8,2,3]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][0,1,6][8,2,3]]
Generated Nodes:
[[0,4,5][7,1,6][8,2,3]] - f(n) = 22 + 7 = 29
[[7,4,5][1,0,6][8,2,3]] - Already visited Node!
[[7,4,5][8,1,6][0,2,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,2][7,6,3][1,8,4]]
Generated Nodes:
[[5,2,0][7,6,3][1,8,4]] - f(n) = 22 + 6 = 28
[[0,5,2][7,6,3][1,8,4]] - Already visited Node!
[[5,6,2][7,0,3][1,8,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,2][6,3,0][1,8,4]]
Generated Nodes:
[[7,5,0][6,3,2][1,8,4]] - f(n) = 22 + 7 = 29
[[7,5,2][6,0,3][1,8,4]] - Already visited Node!
[[7,5,2][6,3,4][1,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[7,5,3][1,4,2][0,8,6]]
```

```
[[7,5,3][0,4,2][1,8,6]] - Already visited Node!
[[7,5,3][1,4,2][8,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,3][5,7,2][1,8,6]]
Generated Nodes:
[[4,0,3][5,7,2][1,8,6]] - f(n) = 23 + 6 = 29
[[5,4,3][0,7,2][1,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,3][1,7,2][0,8,6]]
Generated Nodes:
[[5,4,3][0,7,2][1,8,6]] - Already visited Node!
[[5,4,3][1,7,2][8,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,5,0][8,4,2][7,3,6]]
Generated Nodes:
[[1,0,5][8,4,2][7,3,6]] - f(n) = 23 + 6 = 29
[[1,5,2][8,4,0][7,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,5,2][8,3,4][7,6,0]]
Generated Nodes:
[[1,5,2][8,3,0][7,6,4]] - f(n) = 23 + 6 = 29
[[1,5,2][8,3,4][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,4][3,5,7][1,6,0]]
Generated Nodes:
[[8,2,4][3,5,0][1,6,7]] - f(n) = 23 + 6 = 29
[[8,2,4][3,5,7][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,2][8,5,3][6,4,0]]
Generated Nodes:
[[1,7,2][8,5,0][6,4,3]] - f(n) = 23 + 6 = 29
[[1,7,2][8,5,3][6,0,4]] - Already visited Node!
Node Chosen for Level 24 - [[1,0,5][4,7,6][8,2,3]]
Generated Nodes:
[[1,5,0][4,7,6][8,2,3]] - f(n) = 24 + 5 = 29
[[0,1,5][4,7,6][8,2,3]] - f(n) = 24 + 6 = 30
```

```
[[1,7,5][4,0,6][8,2,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,1][4,5,3][8,0,6]]
Generated Nodes:
[[7,2,1][4,0,3][8,5,6]] - f(n) = 24 + 6 = 30
[[7,2,1][4,5,3][8,6,0]] - Already visited Node!
[[7,2,1][4,5,3][0,8,6]] - f(n) = 24 + 4 = 28
Node Chosen for Level 22 - [[1,0,4][2,7,5][8,3,6]]
Generated Nodes:
[[1,4,0][2,7,5][8,3,6]] - f(n) = 22 + 7 = 29
[[0,1,4][2,7,5][8,3,6]] - f(n) = 22 + 8 = 30
[[1,7,4][2,0,5][8,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[1,7,4][2,3,5][8,0,6]]
Generated Nodes:
[[1,7,4][2,0,5][8,3,6]] - Already visited Node!
[[1,7,4][2,3,5][8,6,0]] - f(n) = 22 + 7 = 29
[[1,7,4][2,3,5][0,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,7,4][8,2,5][3,0,6]]
Generated Nodes:
[[1,7,4][8,0,5][3,2,6]] - f(n) = 22 + 7 = 29
[[1,7,4][8,2,5][3,6,0]] - f(n) = 22 + 7 = 29
[[1,7,4][8,2,5][0,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,7,2][3,0,6][5,8,1]]
Generated Nodes:
[[4,0,2][3,7,6][5,8,1]] - f(n) = 23 + 6 = 29
[[4,7,2][3,6,0][5,8,1]] - f(n) = 23 + 7 = 30
[[4,7,2][0,3,6][5,8,1]] - Already visited Node!
[[4,7,2][3,8,6][5,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[3,7,2][0,5,8][4,1,6]]
Generated Nodes:
[[0,7,2][3,5,8][4,1,6]] - Already visited Node!
[[3,7,2][5,0,8][4,1,6]] - f(n) = 22 + 8 = 30
[[3,7,2][4,5,8][0,1,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[2,7,4][3,5,8][1,0,6]]
```

```
Generated Nodes:
```

```
[[2,7,4][3,0,8][1,5,6]] - f(n) = 22 + 8 = 30

[[2,7,4][3,5,8][1,6,0]] - f(n) = 22 + 7 = 29

[[2,7,4][3,5,8][0,1,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[3,0,2][5,8,4][7,1,6]]

Generated Nodes:

```
[[3,2,0][5,8,4][7,1,6]] - f(n) = 22 + 6 = 28

[[0,3,2][5,8,4][7,1,6]] - Already visited Node!

[[3,8,2][5,0,4][7,1,6]] - f(n) = 22 + 7 = 29
```

Node Chases for Lovel 22 [[5 0 2][0 2 4][7 1 6]]

Node Chosen for Level 22 - [[5,0,2][8,3,4][7,1,6]]

Generated Nodes:

```
[[5,2,0][8,3,4][7,1,6]] - Already visited Node!
[[0,5,2][8,3,4][7,1,6]] - f(n) = 22 + 7 = 29
[[5,3,2][8,0,4][7,1,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[5,3,2][8,4,0][7,1,6]]

Generated Nodes:

```
[[5,3,0][8,4,2][7,1,6]] - f(n) = 22 + 7 = 29

[[5,3,2][8,0,4][7,1,6]] - Already visited Node!

[[5,3,2][8,4,6][7,1,0]] - f(n) = 22 + 6 = 28
```

Node Chosen for Level 22 - [[5,3,2][8,1,4][7,0,6]]

Generated Nodes:

```
[[5,3,2][8,0,4][7,1,6]] - Already visited Node! [[5,3,2][8,1,4][7,6,0]] - f(n) = 22 + 7 = 29 [[5,3,2][8,1,4][0,7,6]] - f(n) = 22 + 8 = 30
```

Node Chosen for Level 23 - [[8,7,2][4,3,6][5,1,0]]

Generated Nodes:

$$[[8,7,2][4,3,0][5,1,6]] - f(n) = 23 + 7 = 30$$

 $[[8,7,2][4,3,6][5,0,1]] - Already visited Node!$

Node Chosen for Level 23 - [[7,2,1][8,4,6][0,3,5]]

```
[[7,2,1][0,4,6][8,3,5]] - f(n) = 23 + 6 = 29
[[7,2,1][8,4,6][3,0,5]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[1,2,4][8,0,7][3,5,6]]
Generated Nodes:
[[1,0,4][8,2,7][3,5,6]] - f(n) = 23 + 7 = 30
[[1,2,4][8,7,0][3,5,6]] - Already visited Node!
[[1,2,4][0,8,7][3,5,6]] - f(n) = 23 + 6 = 29
[[1,2,4][8,5,7][3,0,6]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[1,7,2][8,0,6][3,4,5]]
Generated Nodes:
[[1,0,2][8,7,6][3,4,5]] - f(n) = 23 + 6 = 29
[[1,7,2][8,6,0][3,4,5]] - f(n) =
                                  23 + 7 = 30
[[1,7,2][0,8,6][3,4,5]] - f(n) = 23 + 6 = 29
[[1,7,2][8,4,6][3,0,5]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,2][8,4,6][0,3,5]]
Generated Nodes:
[[1,7,2][0,4,6][8,3,5]] - f(n) = 23 + 6 = 29
[[1,7,2][8,4,6][3,0,5]] - Already visited Node!
Node Chosen for Level 24 - [[8,0,4][2,5,6][7,3,1]]
Generated Nodes:
[[8,4,0][2,5,6][7,3,1]] - f(n) = 24 + 5 = 29
[[0,8,4][2,5,6][7,3,1]] - Already visited Node!
[[8,5,4][2,0,6][7,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][3,1,6][7,0,8]]
Generated Nodes:
[[5,2,4][3,0,6][7,1,8]] - Already visited Node!
[[5,2,4][3,1,6][7,8,0]] - Already visited Node!
[[5,2,4][3,1,6][0,7,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[5,2,6][7,1,4][3,8,0]]
Generated Nodes:
[[5,2,6][7,1,0][3,8,4]] - Already visited Node!
[[5,2,6][7,1,4][3,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,2,6][5,7,1][3,8,4]]
Generated Nodes:
```

```
[[2,0,6][5,7,1][3,8,4]] - f(n) = 23 + 7 = 30
[[5,2,6][0,7,1][3,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][3,7,1][0,8,4]]
Generated Nodes:
[[5,2,6][0,7,1][3,8,4]] - Already visited Node!
[[5,2,6][3,7,1][8,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[7,4,8][2,5,0][3,1,6]]
Generated Nodes:
[[7,4,0][2,5,8][3,1,6]] - Already visited Node!
[[7,4,8][2,0,5][3,1,6]] - f(n) = 22 + 8 = 30
[[7,4,8][2,5,6][3,1,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[0,8,2][4,7,6][5,3,1]]
Generated Nodes:
[[8,0,2][4,7,6][5,3,1]] - Already visited Node!
[[4,8,2][0,7,6][5,3,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,2][4,3,6][5,1,0]]
Generated Nodes:
[[8,7,2][4,3,0][5,1,6]] - f(n) = 23 + 7 = 30
[[8,7,2][4,3,6][5,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,1][7,8,6][3,4,5]]
Generated Nodes:
[[2,0,1][7,8,6][3,4,5]] - f(n) = 23 + 7 = 30
[[7,2,1][0,8,6][3,4,5]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,1][3,8,6][0,4,5]]
Generated Nodes:
[[7,2,1][0,8,6][3,4,5]] - Already visited Node!
[[7,2,1][3,8,6][4,0,5]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,1][8,4,6][0,3,5]]
Generated Nodes:
[[7,2,1][0,4,6][8,3,5]] - f(n) = 23 + 6 = 29
```

```
[[7,2,1][8,4,6][3,0,5]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,7][2,5,4][3,1,6]]
Generated Nodes:
[[8,7,0][2,5,4][3,1,6]] - Already visited Node!
[[0,8,7][2,5,4][3,1,6]] - f(n) = 22 + 7 = 29
[[8,5,7][2,0,4][3,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,4,2][0,5,8][3,1,6]]
Generated Nodes:
[[0,4,2][7,5,8][3,1,6]] - Already visited Node!
[[7,4,2][5,0,8][3,1,6]] - f(n) = 22 + 8 = 30
[[7,4,2][3,5,8][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,0,5][1,8,2][7,3,6]]
Generated Nodes:
[[4,5,0][1,8,2][7,3,6]] - f(n) = 22 + 7 = 29
[[0,4,5][1,8,2][7,3,6]] - f(n) = 22 + 7 = 29
[[4,8,5][1,0,2][7,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,8,5][1,2,0][7,3,6]]
Generated Nodes:
[[4,8,0][1,2,5][7,3,6]] - f(n) = 22 + 7 = 29
[[4,8,5][1,0,2][7,3,6]] - Already visited Node!
[[4,8,5][1,2,6][7,3,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[4,8,5][1,3,2][7,0,6]]
Generated Nodes:
[[4,8,5][1,0,2][7,3,6]] - Already visited Node!
[[4,8,5][1,3,2][7,6,0]] - f(n) = 22 + 7 = 29
[[4,8,5][1,3,2][0,7,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,1][8,5,4][3,6,2]]
Generated Nodes:
[[7,1,0][8,5,4][3,6,2]] - Already visited Node!
[[0,7,1][8,5,4][3,6,2]] - f(n) = 22 + 7 = 29
[[7,5,1][8,0,4][3,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,1,4][8,5,2][3,0,6]]
```

```
Generated Nodes:
```

```
[[7,1,4][8,0,2][3,5,6]] - f(n) = 22 + 8 = 30

[[7,1,4][8,5,2][3,6,0]] - Already visited Node!

[[7,1,4][8,5,2][0,3,6]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[4,0,8][5,1,2][7,3,6]]

Generated Nodes:

```
[[4,8,0][5,1,2][7,3,6]] - f(n) = 22 + 7 = 29

[[0,4,8][5,1,2][7,3,6]] - Already visited Node!

[[4,1,8][5,0,2][7,3,6]] - f(n) = 22 + 7 = 29
```

Node Chases for Lovel 22 [[5 4 0][1 2 0][7 2 6]]

Node Chosen for Level 22 - [[5,4,8][1,2,0][7,3,6]]

Generated Nodes:

[[5 4 A][1 2 O][7 2 A]] A

```
[[5,4,0][1,2,8][7,3,6]] - Already visited Node!
[[5,4,8][1,0,2][7,3,6]] - Already visited Node!
[[5,4,8][1,2,6][7,3,0]] - f(n) = 22 + 6 = 28
```

Node Chosen for Level 22 - [[5,4,8][1,3,2][7,0,6]]

Generated Nodes:

```
[[5,4,8][1,0,2][7,3,6]] - Already visited Node! [[5,4,8][1,3,2][7,6,0]] - f(n) = 22 + 7 = 29 [[5,4,8][1,3,2][0,7,6]] - f(n) = 22 + 8 = 30
```

Node Chosen for Level 22 - [[8,0,2][5,6,1][7,3,4]]

Generated Nodes:

```
[[8,2,0][5,6,1][7,3,4]] - f(n) = 22 + 6 = 28

[[0,8,2][5,6,1][7,3,4]] - Already visited Node!

[[8,6,2][5,0,1][7,3,4]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[5,0,2][6,8,1][7,3,4]]

Generated Nodes:

```
[[5,2,0][6,8,1][7,3,4]] - f(n) = 22 + 6 = 28

[[0,5,2][6,8,1][7,3,4]] - f(n) = 22 + 7 = 29

[[5,8,2][6,0,1][7,3,4]] - Already visited Node!
```

Node Chosen for Level 22 - [[5,8,2][6,1,0][7,3,4]]

```
[[5,8,0][6,1,2][7,3,4]] - f(n) = 22 + 7 = 29

[[5,8,2][6,0,1][7,3,4]] - Already visited Node!
```

```
[[5,8,2][6,1,4][7,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,8,2][6,3,1][7,0,4]]
Generated Nodes:
[[5,8,2][6,0,1][7,3,4]] - Already visited Node!
[[5,8,2][6,3,1][7,4,0]] - f(n) = 22 + 7 = 29
[[5,8,2][6,3,1][0,7,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[6,7,2][0,5,8][3,1,4]]
Generated Nodes:
[[0,7,2][6,5,8][3,1,4]] - Already visited Node!
[[6,7,2][5,0,8][3,1,4]] - f(n) = 22 + 8 = 30
[[6,7,2][3,5,8][0,1,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,8,5][3,7,2][6,0,4]]
Generated Nodes:
[[1,8,5][3,0,2][6,7,4]] - f(n) = 22 + 7 = 29
[[1,8,5][3,7,2][6,4,0]] - f(n) = 22 + 7 = 29
[[1,8,5][3,7,2][0,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[1,5,2][7,6,0][8,3,4]]
Generated Nodes:
[[1,5,0][7,6,2][8,3,4]] - Already visited Node!
[[1,5,2][7,0,6][8,3,4]] - f(n) = 22 + 6 = 28
[[1,5,2][7,6,4][8,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,6,5][7,2,0][8,3,4]]
Generated Nodes:
[[1,6,0][7,2,5][8,3,4]] - f(n) = 22 + 7 = 29
[[1,6,5][7,0,2][8,3,4]] - Already visited Node!
[[1,6,5][7,2,4][8,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,6,5][0,7,2][8,3,4]]
Generated Nodes:
[[0,6,5][1,7,2][8,3,4]] - f(n) = 22 + 8 = 30
[[1,6,5][7,0,2][8,3,4]] - Already visited Node!
[[1,6,5][8,7,2][0,3,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,6,5][7,3,2][8,0,4]]
```

```
Generated Nodes:
```

```
[[1,6,5][7,0,2][8,3,4]] - Already visited Node! [[1,6,5][7,3,2][8,4,0]] - f(n) = 22 + 7 = 29 [[1,6,5][7,3,2][0,8,4]] - f(n) = 22 + 6 = 28
```

Node Chosen for Level 22 - [[8,0,2][5,6,1][7,3,4]]

Generated Nodes:

```
[[8,2,0][5,6,1][7,3,4]] - f(n) = 22 + 6 = 28

[[0,8,2][5,6,1][7,3,4]] - Already visited Node!

[[8,6,2][5,0,1][7,3,4]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[5,0,2][6,8,1][7,3,4]]

Generated Nodes:

```
[[5,2,0][6,8,1][7,3,4]] - f(n) = 22 + 6 = 28

[[0,5,2][6,8,1][7,3,4]] - f(n) = 22 + 7 = 29

[[5,8,2][6,0,1][7,3,4]] - Already visited Node!
```

Node Chosen for Level 22 - [[5,8,2][6,1,0][7,3,4]]

Generated Nodes:

```
[[5,8,0][6,1,2][7,3,4]] - f(n) = 22 + 7 = 29

[[5,8,2][6,0,1][7,3,4]] - Already visited Node!

[[5,8,2][6,1,4][7,3,0]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[5,8,2][6,3,1][7,0,4]]

Generated Nodes:

```
[[5,8,2][6,0,1][7,3,4]] - Already visited Node! [[5,8,2][6,3,1][7,4,0]] - f(n) = 22 + 7 = 29 [[5,8,2][6,3,1][0,7,4]] - f(n) = 22 + 8 = 30
```

Node Chosen for Level 22 - [[3,7,2][0,5,8][6,4,1]]

Generated Nodes:

```
[[0,7,2][3,5,8][6,4,1]] - Already visited Node! [[3,7,2][5,0,8][6,4,1]] - f(n) = 22 + 8 = 30 [[3,7,2][6,5,8][0,4,1]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[1,0,5][3,7,2][8,6,4]]

```
[[1,5,0][3,7,2][8,6,4]] - f(n) = 22 + 7 = 29
[[0,1,5][3,7,2][8,6,4]] - f(n) = 22 + 8 = 30
```

```
[[1,7,5][3,0,2][8,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[1,7,5][3,2,0][8,6,4]]
Generated Nodes:
[[1,7,0][3,2,5][8,6,4]] - f(n) = 22 + 7 = 29
[[1,7,5][3,0,2][8,6,4]] - Already visited Node!
[[1,7,5][3,2,4][8,6,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,7,5][3,6,2][8,0,4]]
Generated Nodes:
[[1,7,5][3,0,2][8,6,4]] - Already visited Node!
[[1,7,5][3,6,2][8,4,0]] - f(n) = 22 + 7 = 29
[[1,7,5][3,6,2][0,8,4]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[1,7,5][8,3,2][6,0,4]]
Generated Nodes:
[[1,7,5][8,0,2][6,3,4]] - f(n) = 22 + 7 = 29
[[1,7,5][8,3,2][6,4,0]] - f(n) = 22 + 7 = 29
[[1,7,5][8,3,2][0,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,8,6][0,1,7]]
Generated Nodes:
[[5,2,4][0,8,6][3,1,7]] - f(n) = 23 + 6 = 29
[[5,2,4][3,8,6][1,0,7]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,0][3,4,6][2,8,1]]
Generated Nodes:
[[7,0,5][3,4,6][2,8,1]] - Already visited Node!
[[7,5,6][3,4,0][2,8,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,5][3,4,6][2,8,1]]
Generated Nodes:
[[7,0,5][3,4,6][2,8,1]] - Already visited Node!
[[3,7,5][0,4,6][2,8,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,4,5][7,3,6][2,8,1]]
Generated Nodes:
[[4,0,5][7,3,6][2,8,1]] - f(n) = 23 + 6 = 29
```

```
[[7,4,5][0,3,6][2,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[4,2,5][8,7,6][0,3,1]]
Generated Nodes:
[[4,2,5][0,7,6][8,3,1]] - Already visited Node!
[[4,2,5][8,7,6][3,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[4,2,5][7,3,6][8,1,0]]
Generated Nodes:
[[4,2,5][7,3,0][8,1,6]] - f(n) = 23 + 7 = 30
[[4,2,5][7,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,4,5][7,3,6][2,8,1]]
Generated Nodes:
[[4,0,5][7,3,6][2,8,1]] - f(n) = 23 + 6 = 29
[[7,4,5][0,3,6][2,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,1,2][5,0,6][7,4,3]]
Generated Nodes:
[[8,0,2][5,1,6][7,4,3]] - f(n) = 23 + 6 = 29
[[8,1,2][5,6,0][7,4,3]] - f(n) = 23 + 7 = 30
[[8,1,2][0,5,6][7,4,3]] - f(n) = 23 + 5 = 28
[[8,1,2][5,4,6][7,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,0][7,4,1][3,8,6]]
Generated Nodes:
[[5,0,2][7,4,1][3,8,6]] - f(n) = 23 + 7 = 30
[[5,2,1][7,4,0][3,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,1][5,7,4][3,8,6]]
Generated Nodes:
[[2,0,1][5,7,4][3,8,6]] - f(n) = 23 + 7 = 30
[[5,2,1][0,7,4][3,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,1][3,7,4][0,8,6]]
Generated Nodes:
[[5,2,1][0,7,4][3,8,6]] - Already visited Node!
[[5,2,1][3,7,4][8,0,6]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[5,2,1][7,0,3][6,8,4]]
Generated Nodes:
[[5,0,1][7,2,3][6,8,4]] - f(n) = 23 + 7 = 30
[[5,2,1][7,3,0][6,8,4]] - Already visited Node!
[[5,2,1][0,7,3][6,8,4]] - f(n) = 23 + 6 = 29
[[5,2,1][7,8,3][6,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,1][7,3,4][6,8,0]]
Generated Nodes:
[[5,2,1][7,3,0][6,8,4]] - Already visited Node!
[[5,2,1][7,3,4][6,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[4,0,2][8,5,6][7,3,1]]
Generated Nodes:
[[4,2,0][8,5,6][7,3,1]] - f(n) = 24 + 4 = 28
[[0,4,2][8,5,6][7,3,1]] - Already visited Node!
[[4,5,2][8,0,6][7,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[1,2,4][8,5,7][3,0,6]]
Generated Nodes:
[[1,2,4][8,0,7][3,5,6]] - Already visited Node!
[[1,2,4][8,5,7][3,6,0]] - f(n) = 24 + 5 = 29
[[1,2,4][8,5,7][0,3,6]] - Already visited Node!
Node Chosen for Level 25 - [[0,2,3][7,5,4][1,8,6]]
Generated Nodes:
[[2,0,3][7,5,4][1,8,6]] - f(n) = 25 + 5 = 30
[[7,2,3][0,5,4][1,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,5,2][3,7,6][0,8,1]]
Generated Nodes:
[[4,5,2][0,7,6][3,8,1]] - Already visited Node!
[[4,5,2][3,7,6][8,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,5][7,2,6][1,8,3]]
Generated Nodes:
[[4,0,5][7,2,6][1,8,3]] - f(n) = 23 + 6 = 29
```

```
[[7,4,5][0,2,6][1,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][2,0,6][1,8,3]]
Generated Nodes:
[[7,0,5][2,4,6][1,8,3]] - f(n) = 23 + 6 = 29
[[7,4,5][2,6,0][1,8,3]] - f(n) = 23 + 7 = 30
[[7,4,5][0,2,6][1,8,3]] - Already visited Node!
[[7,4,5][2,8,6][1,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,8][4,0,6][3,2,1]]
Generated Nodes:
[[7,0,8][4,5,6][3,2,1]] - f(n) = 23 + 5 = 28
[[7,5,8][4,6,0][3,2,1]] - f(n) = 23 + 7 = 30
[[7,5,8][0,4,6][3,2,1]] - f(n) = 23 + 7 = 30
[[7,5,8][4,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,8][4,2,6][0,3,1]]
Generated Nodes:
[[7,5,8][0,2,6][4,3,1]] - f(n) = 23 + 7 = 30
[[7,5,8][4,2,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,8,6][0,1,7]]
Generated Nodes:
[[5,2,4][0,8,6][3,1,7]] - f(n) = 23 + 6 = 29
[[5,2,4][3,8,6][1,0,7]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,1][5,7,6][8,3,4]]
Generated Nodes:
[[2,0,1][5,7,6][8,3,4]] - f(n) = 23 + 7 = 30
[[5,2,1][0,7,6][8,3,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,1][8,7,6][0,3,4]]
Generated Nodes:
[[5,2,1][0,7,6][8,3,4]] - Already visited Node!
[[5,2,1][8,7,6][3,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,1][7,3,6][8,4,0]]
Generated Nodes:
```

```
[[5,2,1][7,3,0][8,4,6]] - f(n) = 23 + 7 = 30
[[5,2,1][7,3,6][8,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[0,4,5][7,2,6][1,8,3]]
Generated Nodes:
[[4,0,5][7,2,6][1,8,3]] - f(n) = 23 + 6 = 29
[[7,4,5][0,2,6][1,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][2,0,6][1,8,3]]
Generated Nodes:
[[7,0,5][2,4,6][1,8,3]] - f(n) = 23 + 6 = 29
[[7,4,5][2,6,0][1,8,3]] - f(n) = 23 + 7 = 30
[[7,4,5][0,2,6][1,8,3]] - Already visited Node!
[[7,4,5][2,8,6][1,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 25 - [[1,2,4][7,0,6][5,8,3]]
Generated Nodes:
[[1,0,4][7,2,6][5,8,3]] - f(n) = 25 + 5 = 30
[[1,2,4][7,6,0][5,8,3]] - f(n) = 25 + 5 = 30
[[1,2,4][0,7,6][5,8,3]] - Already visited Node!
[[1,2,4][7,8,6][5,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[5,2,6][3,4,0][7,8,1]]
Generated Nodes:
[[5,2,0][3,4,6][7,8,1]] - Already visited Node!
[[5,2,6][3,0,4][7,8,1]] - Already visited Node!
[[5,2,6][3,4,1][7,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[8,7,4][2,5,6][0,3,1]]
Generated Nodes:
[[8,7,4][0,5,6][2,3,1]] - f(n) = 23 + 6 = 29
[[8,7,4][2,5,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,5,0][4,1,2][7,3,6]]
Generated Nodes:
[[8,0,5][4,1,2][7,3,6]] - Already visited Node!
[[8,5,2][4,1,0][7,3,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[8,1,5][4,0,2][7,3,6]]
```

```
[[8,0,5][4,1,2][7,3,6]] - Already visited Node!
[[8,1,5][4,2,0][7,3,6]] - f(n) = 23 + 6 = 29
[[8,1,5][0,4,2][7,3,6]] - f(n) = 23 + 7 = 30
[[8,1,5][4,3,2][7,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,8][1,5,4][6,3,0]]
Generated Nodes:
[[7,2,8][1,5,0][6,3,4]] - Already visited Node!
[[7,2,8][1,5,4][6,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,8][6,5,4][3,1,0]]
Generated Nodes:
[[7,2,8][6,5,0][3,1,4]] - Already visited Node!
[[7,2,8][6,5,4][3,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,8][3,5,1][6,4,0]]
Generated Nodes:
[[7,2,8][3,5,0][6,4,1]] - Already visited Node!
[[7,2,8][3,5,1][6,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[7,4,2][0,5,6][3,8,1]]
Generated Nodes:
[[0,4,2][7,5,6][3,8,1]] - Already visited Node!
[[7,4,2][5,0,6][3,8,1]] - f(n) = 24 + 6 = 30
[[7,4,2][3,5,6][0,8,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 25 - [[5,2,6][4,1,3][7,8,0]]
Generated Nodes:
[[5,2,6][4,1,0][7,8,3]] - Already visited Node!
[[5,2,6][4,1,3][7,0,8]] - f(n) = 25 + 5 = 30
Node Chosen for Level 22 - [[3,2,4][1,7,0][8,5,6]]
Generated Nodes:
[[3,2,0][1,7,4][8,5,6]] - Already visited Node!
[[3,2,4][1,0,7][8,5,6]] - f(n) = 22 + 7 = 29
[[3,2,4][1,7,6][8,5,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[3,7,2][1,4,6][8,0,5]]
```

```
Generated Nodes:
```

```
[[3,7,2][1,0,6][8,4,5]] - f(n) = 22 + 7 = 29

[[3,7,2][1,4,6][8,5,0]] - Already visited Node!

[[3,7,2][1,4,6][0,8,5]] - f(n) = 22 + 6 = 28
```

Node Chosen for Level 23 - [[1,7,4][2,0,6][8,5,3]]

Generated Nodes:

```
[[1,0,4][2,7,6][8,5,3]] - f(n) = 23 + 6 = 29

[[1,7,4][2,6,0][8,5,3]] - f(n) = 23 + 7 = 30

[[1,7,4][0,2,6][8,5,3]] - Already visited Node!

[[1,7,4][2,5,6][8,0,3]] - f(n) = 23 + 5 = 28
```

Node Chosen for Level 23 - [[1,7,4][8,2,6][0,5,3]]

Generated Nodes :

```
[[1,7,4][0,2,6][8,5,3]] - Already visited Node! [[1,7,4][8,2,6][5,0,3]] - f(n) = 23 + 6 = 29
```

Node Chosen for Level 23 - [[0,2,4][5,6,1][7,3,8]]

Generated Nodes:

[[2,0,4][5,6,1][7,3,8]] - f(n) = 23 + 7 = 30[[5,2,4][0,6,1][7,3,8]] - Already visited Node!

Node Chosen for Level 23 - [[5,2,4][6,0,1][7,3,8]]

Generated Nodes :

```
[[5,0,4][6,2,1][7,3,8]] - f(n) = 23 + 7 = 30

[[5,2,4][6,1,0][7,3,8]] - f(n) = 23 + 6 = 29

[[5,2,4][0,6,1][7,3,8]] - Already visited Node!

[[5,2,4][6,3,1][7,0,8]] - f(n) = 23 + 6 = 29
```

Node Chosen for Level 23 - [[2,3,0][7,5,4][1,8,6]]

Generated Nodes:

$$[[2,0,3][7,5,4][1,8,6]] - f(n) = 23 + 5 = 28$$

 $[[2,3,4][7,5,0][1,8,6]] - Already visited Node!$

Node Chosen for Level 22 - [[8,2,1][3,7,0][6,5,4]]

```
[[8,2,0][3,7,1][6,5,4]] - Already visited Node! [[8,2,1][3,0,7][6,5,4]] - f(n) = 22 + 7 = 29
```

```
[[8,2,1][3,7,4][6,5,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,2,8][5,7,0][1,6,4]]
Generated Nodes:
[[3,2,0][5,7,8][1,6,4]] - Already visited Node!
[[3,2,8][5,0,7][1,6,4]] - f(n) = 22 + 7 = 29
[[3,2,8][5,7,4][1,6,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[0,2,4][5,8,3][7,1,6]]
Generated Nodes:
[[2,0,4][5,8,3][7,1,6]] - f(n) = 23 + 7 = 30
[[5,2,4][0,8,3][7,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][8,0,3][7,1,6]]
Generated Nodes:
[[5,0,4][8,2,3][7,1,6]] - f(n) = 23 + 7 = 30
[[5,2,4][8,3,0][7,1,6]] - Already visited Node!
[[5,2,4][0,8,3][7,1,6]] - Already visited Node!
[[5,2,4][8,1,3][7,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,1,4][2,5,8][7,3,6]]
Generated Nodes:
[[1,0,4][2,5,8][7,3,6]] - f(n) = 23 + 5 = 28
[[2,1,4][0,5,8][7,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,5,4][2,0,8][7,3,6]]
Generated Nodes:
[[1,0,4][2,5,8][7,3,6]] - f(n) = 23 + 5 = 28
[[1,5,4][2,8,0][7,3,6]] - f(n) = 23 + 6 = 29
[[1,5,4][0,2,8][7,3,6]] - Already visited Node!
[[1,5,4][2,3,8][7,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 25 - [[0,1,4][2,5,6][7,8,3]]
Generated Nodes:
[[1,0,4][2,5,6][7,8,3]] - f(n) = 25 + 3 = 28
[[2,1,4][0,5,6][7,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,5,4][2,0,6][7,8,3]]
Generated Nodes:
```

```
[[1,0,4][2,5,6][7,8,3]] - f(n) = 25 + 3 = 28
[[1,5,4][2,6,0][7,8,3]] - f(n) = 25 + 5 = 30
[[1,5,4][0,2,6][7,8,3]] - Already visited Node!
[[1,5,4][2,8,6][7,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 23 - [[0,2,6][8,5,7][3,4,1]]
Generated Nodes:
[[2,0,6][8,5,7][3,4,1]] - f(n) = 23 + 7 = 30
[[8,2,6][0,5,7][3,4,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,6][3,5,7][0,4,1]]
Generated Nodes:
[[8,2,6][0,5,7][3,4,1]] - Already visited Node!
[[8,2,6][3,5,7][4,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,7,2][6,5,1][4,8,3]]
Generated Nodes:
[[7,0,2][6,5,1][4,8,3]] - Already visited Node!
[[6,7,2][0,5,1][4,8,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,3,2][5,4,6][7,1,8]]
Generated Nodes:
[[3,0,2][5,4,6][7,1,8]] - f(n) = 23 + 6 = 29
[[5,3,2][0,4,6][7,1,8]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,3][0,6,5][1,8,4]]
Generated Nodes:
[[0,2,3][7,6,5][1,8,4]] - f(n) = 24 + 5 = 29
[[7,2,3][6,0,5][1,8,4]] - f(n) = 24 + 5 = 29
[[7,2,3][1,6,5][0,8,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][4,3,8][1,0,6]]
Generated Nodes:
[[7,5,2][4,0,8][1,3,6]] - f(n) = 22 + 7 = 29
[[7,5,2][4,3,8][1,6,0]] - f(n) = 22 + 7 = 29
[[7,5,2][4,3,8][0,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[2,4,8][5,7,6][3,0,1]]
```

```
Generated Nodes:
[[2,4,8][5,0,6][3,7,1]] - f(n) = 22 + 7 = 29
[[2,4,8][5,7,6][3,1,0]] - Already visited Node!
[[2,4,8][5,7,6][0,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,7,4][5,8,6][3,0,1]]
Generated Nodes:
[[2,7,4][5,0,6][3,8,1]] - Already visited Node!
[[2,7,4][5,8,6][3,1,0]] - Already visited Node!
[[2,7,4][5,8,6][0,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,5][1,2,6][4,0,3]]
Generated Nodes:
[[8,7,5][1,0,6][4,2,3]] - f(n) = 22 + 7 = 29
[[8,7,5][1,2,6][4,3,0]] - Already visited Node!
[[8,7,5][1,2,6][0,4,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,4,1][7,2,6][8,0,3]]
Generated Nodes:
[[5,4,1][7,0,6][8,2,3]] - f(n) = 22 + 7 = 29
[[5,4,1][7,2,6][8,3,0]] - Already visited Node!
[[5,4,1][7,2,6][0,8,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 24 - [[7,2,6][0,5,3][1,8,4]]
Generated Nodes:
[[0,2,6][7,5,3][1,8,4]] - f(n) = 24 + 5 = 29
[[7,2,6][5,0,3][1,8,4]] - f(n) = 24 + 6 = 30
[[7,2,6][1,5,3][0,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,0][2,5,4][1,8,6]]
Generated Nodes:
[[3,0,7][2,5,4][1,8,6]] - f(n) = 23 + 6 = 29
[[3,7,4][2,5,0][1,8,6]] - Already visited Node!
```

[[2,0,6][5,4,8][7,3,1]] - f(n) = 23 + 7 = 30[[5,2,6][0,4,8][7,3,1]] - Already visited Node!

Node Chosen for Level 23 - [[0,2,6][5,4,8][7,3,1]]

```
Node Chosen for Level 23 - [[0,2,6][5,8,1][7,3,4]]
Generated Nodes:
[[2,0,6][5,8,1][7,3,4]] - f(n) = 23 + 7 = 30
[[5,2,6][0,8,1][7,3,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][8,0,1][7,3,4]]
Generated Nodes:
[[5,0,6][8,2,1][7,3,4]] - f(n) = 23 + 7 = 30
[[5,2,6][8,1,0][7,3,4]] - f(n) = 23 + 6 = 29
[[5,2,6][0,8,1][7,3,4]] - Already visited Node!
[[5,2,6][8,3,1][7,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[7,5,4][2,8,6][3,0,1]]
Generated Nodes:
[[7,5,4][2,0,6][3,8,1]] - Already visited Node!
[[7,5,4][2,8,6][3,1,0]] - Already visited Node!
[[7,5,4][2,8,6][0,3,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[0,4,7][3,5,2][1,8,6]]
Generated Nodes:
[[4,0,7][3,5,2][1,8,6]] - f(n) = 23 + 6 = 29
[[3,4,7][0,5,2][1,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,4,7][1,5,2][0,8,6]]
Generated Nodes:
[[3,4,7][0,5,2][1,8,6]] - Already visited Node!
[[3,4,7][1,5,2][8,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,4,7][8,5,2][0,3,6]]
Generated Nodes:
[[1,4,7][0,5,2][8,3,6]] - Already visited Node!
[[1,4,7][8,5,2][3,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,7,2][1,5,6][4,3,8]]
Generated Nodes:
[[7,0,2][1,5,6][4,3,8]] - Already visited Node!
[[1,7,2][0,5,6][4,3,8]] - f(n) = 23 + 5 = 28
```

```
Node Chosen for Level 22 - [[8,5,2][3,7,6][1,0,4]]
Generated Nodes:
[[8,5,2][3,0,6][1,7,4]] - f(n) = 22 + 7 = 29
[[8,5,2][3,7,6][1,4,0]] - Already visited Node!
[[8,5,2][3,7,6][0,1,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,2,7][0,3,5][1,4,6]]
Generated Nodes:
[[0,2,7][8,3,5][1,4,6]] - f(n) = 22 + 7 = 29
[[8,2,7][3,0,5][1,4,6]] - Already visited Node!
[[8,2,7][1,3,5][0,4,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,2,7][3,4,5][1,0,6]]
Generated Nodes:
[[8,2,7][3,0,5][1,4,6]] - Already visited Node!
[[8,2,7][3,4,5][1,6,0]] - f(n) = 22 + 7 = 29
[[8,2,7][3,4,5][0,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,2][4,7,8][3,1,6]]
Generated Nodes:
[[5,2,0][4,7,8][3,1,6]] - f(n) = 22 + 6 = 28
[[0,5,2][4,7,8][3,1,6]] - Already visited Node!
[[5,7,2][4,0,8][3,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,2,8][0,7,5][3,1,6]]
Generated Nodes:
[[0,2,8][4,7,5][3,1,6]] - f(n) = 22 + 6 = 28
[[4,2,8][7,0,5][3,1,6]] - Already visited Node!
[[4,2,8][3,7,5][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,2,8][7,1,5][3,0,6]]
Generated Nodes:
[[4,2,8][7,0,5][3,1,6]] - Already visited Node!
[[4,2,8][7,1,5][3,6,0]] - f(n) = 22 + 7 = 29
[[4,2,8][7,1,5][0,3,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,5][3,4,1][6,8,2]]
Generated Nodes:
```

```
[[7,5,0][3,4,1][6,8,2]] - f(n) = 22 + 7 = 29
[[0,7,5][3,4,1][6,8,2]] - f(n) = 22 + 7 = 29
[[7,4,5][3,0,1][6,8,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][3,1,0][6,8,2]]
Generated Nodes:
[[7,4,0][3,1,5][6,8,2]] - f(n) = 22 + 7 = 29
[[7,4,5][3,0,1][6,8,2]] - Already visited Node!
[[7,4,5][3,1,2][6,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,4,5][0,3,1][6,8,2]]
Generated Nodes:
[[0,4,5][7,3,1][6,8,2]] - f(n) = 22 + 7 = 29
[[7,4,5][3,0,1][6,8,2]] - Already visited Node!
[[7,4,5][6,3,1][0,8,2]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,5,2][7,1,6][8,0,3]]
Generated Nodes:
[[4,5,2][7,0,6][8,1,3]] - f(n) = 22 + 7 = 29
[[4,5,2][7,1,6][8,3,0]] - Already visited Node!
[[4,5,2][7,1,6][0,8,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[4,1,5][7,2,6][8,0,3]]
Generated Nodes:
[[4,1,5][7,0,6][8,2,3]] - f(n) = 22 + 7 = 29
[[4,1,5][7,2,6][8,3,0]] - Already visited Node!
[[4,1,5][7,2,6][0,8,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[8,2,4][5,3,0][1,7,6]]
Generated Nodes:
[[8,2,0][5,3,4][1,7,6]] - Already visited Node!
[[8,2,4][5,0,3][1,7,6]] - f(n) = 22 + 7 = 29
[[8,2,4][5,3,6][1,7,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,7][3,8,0][1,6,4]]
Generated Nodes:
[[5,2,0][3,8,7][1,6,4]] - Already visited Node!
[[5,2,7][3,0,8][1,6,4]] - f(n) = 22 + 7 = 29
[[5,2,7][3,8,4][1,6,0]] - f(n) = 22 + 7 = 29
```

```
Node Chosen for Level 22 - [[3,0,5][1,7,2][6,8,4]]
Generated Nodes:
[[3,5,0][1,7,2][6,8,4]] - f(n) = 22 + 7 = 29
[[0,3,5][1,7,2][6,8,4]] - f(n) =
                                  22 + 7 = 29
[[3,7,5][1,0,2][6,8,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,5][1,2,0][6,8,4]]
Generated Nodes:
[[3,7,0][1,2,5][6,8,4]] - f(n) = 22 + 7 = 29
[[3,7,5][1,0,2][6,8,4]] - Already visited Node!
[[3,7,5][1,2,4][6,8,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,7,5][0,1,2][6,8,4]]
Generated Nodes:
[[0,7,5][3,1,2][6,8,4]] - Already visited Node!
[[3,7,5][1,0,2][6,8,4]] - Already visited Node!
[[3,7,5][6,1,2][0,8,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,5][3,8,6][1,4,2]]
Generated Nodes:
[[7,5,0][3,8,6][1,4,2]] - f(n) = 22 + 7 = 29
[[0,7,5][3,8,6][1,4,2]] - f(n) = 22 + 7 = 29
[[7,8,5][3,0,6][1,4,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,8,5][0,3,6][1,4,2]]
Generated Nodes:
[[0,8,5][7,3,6][1,4,2]] - f(n) = 22 + 7 = 29
[[7,8,5][3,0,6][1,4,2]] - Already visited Node!
[[7,8,5][1,3,6][0,4,2]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,8,5][3,4,6][1,0,2]]
Generated Nodes:
[[7,8,5][3,0,6][1,4,2]] - Already visited Node!
[[7,8,5][3,4,6][1,2,0]] - f(n) = 22 + 7 = 29
[[7,8,5][3,4,6][0,1,2]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,2,8][7,6,0][3,1,4]]
Generated Nodes:
```

```
[[5,2,0][7,6,8][3,1,4]] - Already visited Node!
[[5,2,8][7,0,6][3,1,4]] - f(n) = 22 + 6 = 28
[[5,2,8][7,6,4][3,1,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,2,7][0,1,5][3,6,4]]
Generated Nodes:
[[0,2,7][8,1,5][3,6,4]] - f(n) = 22 + 7 = 29
[[8,2,7][1,0,5][3,6,4]] - Already visited Node!
[[8,2,7][3,1,5][0,6,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,2,7][1,6,5][3,0,4]]
Generated Nodes:
[[8,2,7][1,0,5][3,6,4]] - Already visited Node!
[[8,2,7][1,6,5][3,4,0]] - f(n) = 22 + 7 = 29
[[8,2,7][1,6,5][0,3,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,0,5][1,7,6][3,4,2]]
Generated Nodes:
[[8,5,0][1,7,6][3,4,2]] - f(n) = 22 + 7 = 29
[[0,8,5][1,7,6][3,4,2]] - f(n) = 22 + 7 = 29
[[8,7,5][1,0,6][3,4,2]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][0,1,6][3,4,2]]
Generated Nodes:
[[0,7,5][8,1,6][3,4,2]] - Already visited Node!
[[8,7,5][1,0,6][3,4,2]] - Already visited Node!
[[8,7,5][3,1,6][0,4,2]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,5][1,4,6][3,0,2]]
Generated Nodes:
[[8,7,5][1,0,6][3,4,2]] - Already visited Node!
[[8,7,5][1,4,6][3,2,0]] - f(n) = 22 + 7 = 29
[[8,7,5][1,4,6][0,3,2]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,2][0,1,4][6,8,3]]
Generated Nodes:
[[0,5,2][7,1,4][6,8,3]] - f(n) = 22 + 7 = 29
[[7,5,2][1,0,4][6,8,3]] - f(n) = 22 + 7 = 29
[[7,5,2][6,1,4][0,8,3]] - Already visited Node!
```

```
Node Chosen for Level 22 - [[7,5,1][4,2,0][8,3,6]]
Generated Nodes:
[[7,5,0][4,2,1][8,3,6]] - f(n) = 22 + 7 = 29
[[7,5,1][4,0,2][8,3,6]] - Already visited Node!
[[7,5,1][4,2,6][8,3,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,5,1][4,3,2][8,0,6]]
Generated Nodes:
[[7,5,1][4,0,2][8,3,6]] - Already visited Node!
[[7,5,1][4,3,2][8,6,0]] - f(n) = 22 + 7 = 29
[[7,5,1][4,3,2][0,8,6]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,4,1][7,2,6][8,0,3]]
Generated Nodes:
[[5,4,1][7,0,6][8,2,3]] - f(n) = 22 + 7 = 29
[[5,4,1][7,2,6][8,3,0]] - Already visited Node!
[[5,4,1][7,2,6][0,8,3]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,2,4][8,1,0][3,7,6]]
Generated Nodes:
[[5,2,0][8,1,4][3,7,6]] - Already visited Node!
[[5,2,4][8,0,1][3,7,6]] - Already visited Node!
[[5,2,4][8,1,6][3,7,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[5,1,2][8,4,6][3,0,7]]
Generated Nodes:
[[5,1,2][8,0,6][3,4,7]] - f(n) = 22 + 7 = 29
[[5,1,2][8,4,6][3,7,0]] - Already visited Node!
[[5,1,2][8,4,6][0,3,7]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,3,5][0,6,2][1,8,4]]
Generated Nodes:
[[0,3,5][7,6,2][1,8,4]] - f(n) = 22 + 7 = 29
[[7,3,5][6,0,2][1,8,4]] - f(n) = 22 + 7 = 29
[[7,3,5][1,6,2][0,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,4][5,6,1][7,3,8]]
```

```
[[2,0,4][5,6,1][7,3,8]] - f(n) = 23 + 7 = 30
[[5,2,4][0,6,1][7,3,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][6,0,1][7,3,8]]
Generated Nodes:
[[5,0,4][6,2,1][7,3,8]] - f(n) = 23 + 7 = 30
[[5,2,4][6,1,0][7,3,8]] - f(n) = 23 + 6 = 29
[[5,2,4][0,6,1][7,3,8]] - Already visited Node!
[[5,2,4][6,3,1][7,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[8,1,0][4,5,7][3,6,2]]
Generated Nodes:
[[8,0,1][4,5,7][3,6,2]] - f(n) = 23 + 6 = 29
[[8,1,7][4,5,0][3,6,2]] - Already visited Node!
Node Chosen for Level 23 - [[8,1,7][4,5,2][3,6,0]]
Generated Nodes:
[[8,1,7][4,5,0][3,6,2]] - Already visited Node!
[[8,1,7][4,5,2][3,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,7,2][8,5,6][4,1,3]]
Generated Nodes:
[[7,0,2][8,5,6][4,1,3]] - Already visited Node!
[[8,7,2][0,5,6][4,1,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,2,1][5,6,8][7,3,4]]
Generated Nodes:
[[2,0,1][5,6,8][7,3,4]] - f(n) = 23 + 7 = 30
[[5,2,1][0,6,8][7,3,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,1][6,0,8][7,3,4]]
Generated Nodes:
[[5,0,1][6,2,8][7,3,4]] - f(n) = 23 + 7 = 30
[[5,2,1][6,8,0][7,3,4]] - f(n) = 23 + 6 = 29
[[5,2,1][0,6,8][7,3,4]] - Already visited Node!
[[5,2,1][6,3,8][7,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,2,1][5,8,4][7,3,6]]
Generated Nodes:
```

```
[[2,0,1][5,8,4][7,3,6]] - f(n) = 23 + 7 = 30
[[5,2,1][0,8,4][7,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,1][8,0,4][7,3,6]]
Generated Nodes:
[[5,0,1][8,2,4][7,3,6]] - f(n) =
                                23 + 7 = 30
[[5,2,1][8,4,0][7,3,6]] - f(n) = 23 + 6 = 29
[[5,2,1][0,8,4][7,3,6]] - Already visited Node!
[[5,2,1][8,3,4][7,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[1,2,4][0,3,7][5,8,6]]
Generated Nodes:
[[0,2,4][1,3,7][5,8,6]] - f(n) = 24 + 6 = 30
[[1,2,4][3,0,7][5,8,6]] - f(n) = 24 + 5 = 29
[[1,2,4][5,3,7][0,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[1,2,4][3,7,0][5,8,6]]
Generated Nodes:
[[1,2,0][3,7,4][5,8,6]] - Already visited Node!
[[1,2,4][3,0,7][5,8,6]] - f(n) = 24 + 5 = 29
[[1,2,4][3,7,6][5,8,0]] - f(n) = 24 + 4 = 28
Node Chosen for Level 23 - [[1,8,5][6,0,2][7,3,4]]
Generated Nodes:
[[1,0,5][6,8,2][7,3,4]] - f(n) = 23 + 6 = 29
[[1,8,5][6,2,0][7,3,4]] - f(n) = 23 + 6 = 29
[[1,8,5][0,6,2][7,3,4]] - Already visited Node!
[[1,8,5][6,3,2][7,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 25 - [[1,4,3][5,0,2][7,8,6]]
Generated Nodes:
[[1,0,3][5,4,2][7,8,6]] - Already visited Node!
[[1,4,3][5,2,0][7,8,6]] - f(n) = 25 + 4 = 29
[[1,4,3][0,5,2][7,8,6]] - f(n) =
                                  25 + 3 = 28
[[1,4,3][5,8,2][7,0,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[7,2,1][0,5,4][6,8,3]]
Generated Nodes:
[[0,2,1][7,5,4][6,8,3]] - f(n) = 24 + 5 = 29
```

```
[[7,2,1][5,0,4][6,8,3]] - f(n) = 24 + 6 = 30
[[7,2,1][6,5,4][0,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[1,5,2][4,7,6][8,0,3]]
Generated Nodes:
[[1,5,2][4,0,6][8,7,3]] - f(n) = 24 + 5 = 29
[[1,5,2][4,7,6][8,3,0]] - Already visited Node!
[[1,5,2][4,7,6][0,8,3]] - f(n) = 24 + 4 = 28
Node Chosen for Level 24 - [[1,2,7][4,3,5][8,0,6]]
Generated Nodes:
[[1,2,7][4,0,5][8,3,6]] - Already visited Node!
[[1,2,7][4,3,5][8,6,0]] - f(n) = 24 + 5 = 29
[[1,2,7][4,3,5][0,8,6]] - f(n) = 24 + 4 = 28
Node Chosen for Level 23 - [[0,2,1][8,5,7][3,6,4]]
Generated Nodes:
[[2,0,1][8,5,7][3,6,4]] - f(n) = 23 + 7 = 30
[[8,2,1][0,5,7][3,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,1][3,5,7][0,6,4]]
Generated Nodes:
[[8,2,1][0,5,7][3,6,4]] - Already visited Node!
[[8,2,1][3,5,7][6,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,4,8][5,2,6][7,3,1]]
Generated Nodes:
[[4,0,8][5,2,6][7,3,1]] - f(n) = 23 + 6 = 29
[[5,4,8][0,2,6][7,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,8][2,0,6][7,3,1]]
Generated Nodes:
[[5,0,8][2,4,6][7,3,1]] - f(n) = 23 + 6 = 29
[[5,4,8][2,6,0][7,3,1]] - f(n) = 23 + 7 = 30

[[5,4,8][0,2,6][7,3,1]] - Already visited Node!
[[5,4,8][2,3,6][7,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[4,8,5][2,0,6][7,3,1]]
Generated Nodes:
```

```
[[4,0,5][2,8,6][7,3,1]] - f(n) = 23 + 6 = 29
[[4,8,5][2,6,0][7,3,1]] - f(n) = 23 + 7 = 30
[[4,8,5][0,2,6][7,3,1]] - Already visited Node!
[[4,8,5][2,3,6][7,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,4,8][5,2,6][7,3,1]]
Generated Nodes:
[[4,0,8][5,2,6][7,3,1]] - f(n) = 23 + 6 = 29
[[5,4,8][0,2,6][7,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,8][2,0,6][7,3,1]]
Generated Nodes:
[[5,0,8][2,4,6][7,3,1]] - f(n) = 23 + 6 = 29
[[5,4,8][2,6,0][7,3,1]] - f(n) = 23 + 7 = 30
[[5,4,8][0,2,6][7,3,1]] - Already visited Node!
[[5,4,8][2,3,6][7,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,5,0][7,3,2][6,8,4]]
Generated Nodes:
[[1,0,5][7,3,2][6,8,4]] - Already visited Node!
[[1,5,2][7,3,0][6,8,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,3,5][7,0,2][6,8,4]]
Generated Nodes:
[[1,0,5][7,3,2][6,8,4]] - Already visited Node!
[[1,3,5][7,2,0][6,8,4]] - f(n) = 23 + 6 = 29
[[1,3,5][0,7,2][6,8,4]] - f(n) = 23 + 6 = 29
[[1,3,5][7,8,2][6,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,5,0][7,8,6][3,4,2]]
Generated Nodes:
[[1,0,5][7,8,6][3,4,2]] - Already visited Node!
[[1,5,6][7,8,0][3,4,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,8,5][7,0,6][3,4,2]]
Generated Nodes:
[[1,0,5][7,8,6][3,4,2]] - Already visited Node!
[[1,8,5][7,6,0][3,4,2]] - Already visited Node!
[[1,8,5][0,7,6][3,4,2]] - f(n) = 23 + 6 = 29
```

```
[[1,8,5][7,4,6][3,0,2]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,7,2][6,5,3][1,8,4]]
Generated Nodes:
[[7,0,2][6,5,3][1,8,4]] - Already visited Node!
[[6,7,2][0,5,3][1,8,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[7,5,3][4,2,0][1,8,6]]
Generated Nodes:
[[7,5,0][4,2,3][1,8,6]] - f(n) = 24 + 6 = 30
[[7,5,3][4,0,2][1,8,6]] - Already visited Node!
[[7,5,3][4,2,6][1,8,0]] - f(n) = 24 + 4 = 28
Node Chosen for Level 24 - [[1,5,2][8,4,6][7,0,3]]
Generated Nodes:
[[1,5,2][8,0,6][7,4,3]] - f(n) = 24 + 5 = 29
[[1,5,2][8,4,6][7,3,0]] - Already visited Node!
[[1,5,2][8,4,6][0,7,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[1,2,4][8,5,6][0,7,3]]
Generated Nodes:
[[1,2,4][0,5,6][8,7,3]] - Already visited Node!
[[1,2,4][8,5,6][7,0,3]] - f(n) = 25 + 3 = 28
Node Chosen for Level 25 - [[0,2,4][8,5,6][7,1,3]]
Generated Nodes:
[[2,0,4][8,5,6][7,1,3]] - f(n) = 25 + 5 = 30
[[8,2,4][0,5,6][7,1,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,8,2][4,5,6][3,0,1]]
Generated Nodes:
[[7,8,2][4,0,6][3,5,1]] - f(n) = 24 + 6 = 30
[[7,8,2][4,5,6][3,1,0]] - Already visited Node!
[[7,8,2][4,5,6][0,3,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[1,7,0][2,5,4][8,3,6]]
Generated Nodes:
[[1,0,7][2,5,4][8,3,6]] - f(n) = 23 + 6 = 29
```

```
[[1,7,4][2,5,0][8,3,6]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,2][4,3,6][5,8,1]]
Generated Nodes:
[[7,2,0][4,3,6][5,8,1]] - f(n) = 24 + 4 = 28
[[0,7,2][4,3,6][5,8,1]] - Already visited Node!
[[7,3,2][4,0,6][5,8,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,2,4][8,7,6][3,0,5]]
Generated Nodes:
[[1,2,4][8,0,6][3,7,5]] - f(n) = 24 + 5 = 29
[[1,2,4][8,7,6][3,5,0]] - Already visited Node!
[[1,2,4][8,7,6][0,3,5]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[1,7,2][6,5,8][0,3,4]]
Generated Nodes:
[[1,7,2][0,5,8][6,3,4]] - Already visited Node!
[[1,7,2][6,5,8][3,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[5,2,4][0,3,6][1,8,7]]
Generated Nodes:
[[0,2,4][5,3,6][1,8,7]] - f(n) = 24 + 5 = 29
[[5,2,4][3,0,6][1,8,7]] - Already visited Node!
[[5,2,4][1,3,6][0,8,7]] - f(n) = 24 + 5 = 29
Node Chosen for Level 25 - [[8,2,4][3,5,6][7,1,0]]
Generated Nodes:
[[8,2,4][3,5,0][7,1,6]] - f(n) = 25 + 5 = 30
[[8,2,4][3,5,6][7,0,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,0,2][4,7,6][3,8,1]]
Generated Nodes:
[[5,2,0][4,7,6][3,8,1]] - f(n) = 24 + 4 = 28
[[0,5,2][4,7,6][3,8,1]] - Already visited Node!
[[5,7,2][4,0,6][3,8,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,2,4][0,3,6][1,8,7]]
Generated Nodes:
```

```
[[0,2,4][5,3,6][1,8,7]] - f(n) = 24 + 5 = 29
[[5,2,4][3,0,6][1,8,7]] - Already visited Node!
[[5,2,4][1,3,6][0,8,7]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,2,8][3,5,6][4,0,1]]
Generated Nodes:
[[7,2,8][3,0,6][4,5,1]] - f(n) = 24 + 6 = 30
[[7,2,8][3,5,6][4,1,0]] - Already visited Node!
[[7,2,8][3,5,6][0,4,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[4,2,8][7,5,6][3,0,1]]
Generated Nodes:
[[4,2,8][7,0,6][3,5,1]] - f(n) = 24 + 6 = 30
[[4,2,8][7,5,6][3,1,0]] - Already visited Node!
[[4,2,8][7,5,6][0,3,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 26 - [[1,2,4][8,5,6][7,0,3]]
Generated Nodes:
[[1,2,4][8,0,6][7,5,3]] - f(n) = 26 + 4 = 30
[[1,2,4][8,5,6][7,3,0]] - Already visited Node!
[[1,2,4][8,5,6][0,7,3]] - Already visited Node!
Node Chosen for Level 26 - [[1,2,4][8,5,6][7,0,3]]
Generated Nodes:
[[1,2,4][8,0,6][7,5,3]] - f(n) = 26 + 4 = 30
[[1,2,4][8,5,6][7,3,0]] - Already visited Node!
[[1,2,4][8,5,6][0,7,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,1][6,5,0][4,8,3]]
Generated Nodes:
[[7,2,0][6,5,1][4,8,3]] - Already visited Node!
[[7,2,1][6,0,5][4,8,3]] - f(n) = 24 + 6 = 30
[[7,2,1][6,5,3][4,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,0,2][4,3,6][7,1,8]]
Generated Nodes:
[[5,2,0][4,3,6][7,1,8]] - f(n) = 24 + 4 = 28
[[0,5,2][4,3,6][7,1,8]] - f(n) = 24 + 5 = 29
[[5,3,2][4,0,6][7,1,8]] - Already visited Node!
```

```
Node Chosen for Level 24 - [[5,3,2][4,1,6][7,0,8]]
Generated Nodes:
[[5,3,2][4,0,6][7,1,8]] - Already visited Node!
[[5,3,2][4,1,6][7,8,0]] - f(n) = 24 + 4 = 28
[[5,3,2][4,1,6][0,7,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[0,4,2][5,6,1][7,8,3]]
Generated Nodes:
[[4,0,2][5,6,1][7,8,3]] - f(n) = 23 + 6 = 29
[[5,4,2][0,6,1][7,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,2][6,0,1][7,8,3]]
Generated Nodes:
[[5,0,2][6,4,1][7,8,3]] - f(n) = 23 + 6 = 29
[[5,4,2][6,1,0][7,8,3]] - f(n) = 23 + 6 = 29
[[5,4,2][0,6,1][7,8,3]] - Already visited Node!
[[5,4,2][6,8,1][7,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,0][3,5,7][1,4,6]]
Generated Nodes:
[[8,0,2][3,5,7][1,4,6]] - f(n) = 23 + 7 = 30
[[8,2,7][3,5,0][1,4,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,1,5][3,0,2][7,8,6]]
Generated Nodes:
[[4,0,5][3,1,2][7,8,6]] - f(n) = 23 + 6 = 29
[[4,1,5][3,2,0][7,8,6]] - f(n) = 23 + 6 = 29
[[4,1,5][0,3,2][7,8,6]] - Already visited Node!
[[4,1,5][3,8,2][7,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,0][1,5,7][3,6,4]]
Generated Nodes:
[[8,0,2][1,5,7][3,6,4]] - f(n) = 23 + 7 = 30
[[8,2,7][1,5,0][3,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,7][1,5,4][3,6,0]]
Generated Nodes:
[[8,2,7][1,5,0][3,6,4]] - Already visited Node!
```

```
[[8,2,7][1,5,4][3,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,6,2][5,3,1][7,8,4]]
Generated Nodes:
[[6,0,2][5,3,1][7,8,4]] - f(n) = 23 + 6 = 29
[[5,6,2][0,3,1][7,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,6,2][3,0,1][7,8,4]]
Generated Nodes:
[[5,0,2][3,6,1][7,8,4]] - f(n) = 23 + 6 = 29
[[5,6,2][3,1,0][7,8,4]] - f(n) = 23 + 6 = 29
[[5,6,2][0,3,1][7,8,4]] - Already visited Node!
[[5,6,2][3,8,1][7,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,1,0][4,5,2][8,3,6]]
Generated Nodes:
[[7,0,1][4,5,2][8,3,6]] - Already visited Node!
[[7,1,2][4,5,0][8,3,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,7,1][4,5,2][8,3,6]]
Generated Nodes:
[[7,0,1][4,5,2][8,3,6]] - Already visited Node!
[[4,7,1][0,5,2][8,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,1][5,3,2][7,8,6]]
Generated Nodes:
[[4,0,1][5,3,2][7,8,6]] - f(n) = 23 + 6 = 29
[[5,4,1][0,3,2][7,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,1][3,0,2][7,8,6]]
Generated Nodes:
[[5,0,1][3,4,2][7,8,6]] - Already visited Node!
[[5,4,1][3,2,0][7,8,6]] - f(n) = 23 + 6 = 29
[[5,4,1][0,3,2][7,8,6]] - Already visited Node!
[[5,4,1][3,8,2][7,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,3][7,0,1][8,6,4]]
Generated Nodes:
```

```
[[5,0,3][7,2,1][8,6,4]] - f(n) = 23 + 7 = 30
[[5,2,3][7,1,0][8,6,4]] - Already visited Node!
[[5,2,3][0,7,1][8,6,4]] - f(n) = 23 + 6 = 29
[[5,2,3][7,6,1][8,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,3][7,1,4][8,6,0]]
Generated Nodes:
[[5,2,3][7,1,0][8,6,4]] - Already visited Node!
[[5,2,3][7,1,4][8,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,1,2][5,6,3][7,8,4]]
Generated Nodes:
[[1,0,2][5,6,3][7,8,4]] - f(n) = 23 + 5 = 28
[[5,1,2][0,6,3][7,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,1,2][6,0,3][7,8,4]]
Generated Nodes:
[[5,0,2][6,1,3][7,8,4]] - f(n) = 23 + 6 = 29
[[5,1,2][6,3,0][7,8,4]] - f(n) = 23 + 6 = 29
[[5,1,2][0,6,3][7,8,4]] - Already visited Node!
[[5,1,2][6,8,3][7,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,3][7,0,1][8,6,4]]
Generated Nodes:
[[5,0,3][7,2,1][8,6,4]] - f(n) = 23 + 7 = 30
[[5,2,3][7,1,0][8,6,4]] - Already visited Node! [[5,2,3][0,7,1][8,6,4]] - f(n) = 23 + 6 = 29
[[5,2,3][7,6,1][8,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,3][7,1,4][8,6,0]]
Generated Nodes:
[[5,2,3][7,1,0][8,6,4]] - Already visited Node!
[[5,2,3][7,1,4][8,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[1,5,8][4,2,0][7,3,6]]
Generated Nodes:
[[1,5,0][4,2,8][7,3,6]] - f(n) = 24 + 5 = 29
[[1,5,8][4,0,2][7,3,6]] - Already visited Node!
[[1,5,8][4,2,6][7,3,0]] - f(n) = 24 + 4 = 28
```

```
Node Chosen for Level 24 - [[1,5,8][4,3,2][7,0,6]]
Generated Nodes:
[[1,5,8][4,0,2][7,3,6]] - Already visited Node!
[[1,5,8][4,3,2][7,6,0]] - f(n) = 24 + 5 = 29
[[1,5,8][4,3,2][0,7,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,2,8][7,5,0][3,6,4]]
Generated Nodes:
[[1,2,0][7,5,8][3,6,4]] - Already visited Node!
[[1,2,8][7,0,5][3,6,4]] - f(n) = 24 + 6 = 30
[[1,2,8][7,5,4][3,6,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 25 - [[3,2,0][4,5,7][1,8,6]]
Generated Nodes:
[[3,0,2][4,5,7][1,8,6]] - f(n) = 25 + 5 = 30
[[3,2,7][4,5,0][1,8,6]] - Already visited Node!
Node Chosen for Level 25 - [[1,2,0][4,5,7][8,3,6]]
Generated Nodes:
[[1,0,2][4,5,7][8,3,6]] - f(n) = 25 + 5 = 30
[[1,2,7][4,5,0][8,3,6]] - Already visited Node!
Node Chosen for Level 26 - [[3,0,2][4,5,6][7,8,1]]
Generated Nodes:
[[3,2,0][4,5,6][7,8,1]] - f(n) = 26 + 2 = 28
[[0,3,2][4,5,6][7,8,1]] - Already visited Node!
[[3,5,2][4,0,6][7,8,1]] - f(n) = 26 + 4 = 30
Node Chosen for Level 24 - [[8,0,5][4,2,6][7,3,1]]
Generated Nodes:
[[8,5,0][4,2,6][7,3,1]] - f(n) = 24 + 5 = 29
[[0,8,5][4,2,6][7,3,1]] - Already visited Node!
[[8,2,5][4,0,6][7,3,1]] - f(n) = 24 + 4 = 28
Node Chosen for Level 25 - [[0,7,3][4,5,2][1,8,6]]
Generated Nodes:
```

[[7,0,3][4,5,2][1,8,6]] - Already visited Node! [[4,7,3][0,5,2][1,8,6]] - f(n) = 25 + 5 = 30

```
Node Chosen for Level 24 - [[1,7,4][2,5,6][8,0,3]]
Generated Nodes:
[[1,7,4][2,0,6][8,5,3]] - Already visited Node!
[[1,7,4][2,5,6][8,3,0]] - Already visited Node!
[[1,7,4][2,5,6][0,8,3]] - f(n) = 24 + 4 = 28
Node Chosen for Level 25 - [[4,2,5][3,0,6][7,8,1]]
Generated Nodes:
[[4,0,5][3,2,6][7,8,1]] - f(n) = 25 + 5 = 30
[[4,2,5][3,6,0][7,8,1]] - f(n) = 25 + 5 = 30
[[4,2,5][0,3,6][7,8,1]] - Already visited Node!
[[4,2,5][3,8,6][7,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[0,2,1][5,3,6][7,8,4]]
Generated Nodes:
[[2,0,1][5,3,6][7,8,4]] - f(n) = 25 + 5 = 30
[[5,2,1][0,3,6][7,8,4]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,1][3,0,6][7,8,4]]
Generated Nodes:
[[5,0,1][3,2,6][7,8,4]] - f(n) = 25 + 5 = 30
[[5,2,1][3,6,0][7,8,4]] - f(n) = 25 + 5 = 30
[[5,2,1][0,3,6][7,8,4]] - Already visited Node!
[[5,2,1][3,8,6][7,0,4]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[8,2,7][3,5,6][1,0,4]]
Generated Nodes:
[[8,2,7][3,0,6][1,5,4]] - f(n) = 24 + 6 = 30
[[8,2,7][3,5,6][1,4,0]] - Already visited Node!
[[8,2,7][3,5,6][0,1,4]] - f(n) = 24 + 5 = 29
Node Chosen for Level 25 - [[1,8,0][4,5,2][7,3,6]]
Generated Nodes:
[[1,0,8][4,5,2][7,3,6]] - Already visited Node!
[[1,8,2][4,5,0][7,3,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 26 - [[1,2,7][4,5,6][8,0,3]]
Generated Nodes:
```

```
[[1,2,7][4,0,6][8,5,3]] - f(n) = 26 + 4 = 30
[[1,2,7][4,5,6][8,3,0]] - Already visited Node!
[[1,2,7][4,5,6][0,8,3]] - f(n) = 26 + 2 = 28
Node Chosen for Level 25 - [[7,2,3][6,5,4][1,8,0]]
Generated Nodes:
[[7,2,3][6,5,0][1,8,4]] - Already visited Node!
[[7,2,3][6,5,4][1,0,8]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[1,5,0][4,3,2][7,8,6]]
Generated Nodes:
[[1,0,5][4,3,2][7,8,6]] - Already visited Node!
[[1,5,2][4,3,0][7,8,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[1,3,5][4,0,2][7,8,6]]
Generated Nodes:
[[1,0,5][4,3,2][7,8,6]] - Already visited Node!
[[1,3,5][4,2,0][7,8,6]] - f(n) = 25 + 4 = 29
[[1,3,5][0,4,2][7,8,6]] - f(n) = 25 + 5 = 30
[[1,3,5][4,8,2][7,0,6]] - f(n) =
                                25 + 5 = 30
Node Chosen for Level 23 - [[7,2,6][3,4,5][1,8,0]]
Generated Nodes:
[[7,2,6][3,4,0][1,8,5]] - f(n) = 23 + 6 = 29
[[7,2,6][3,4,5][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][1,4,5][0,8,3]]
Generated Nodes:
[[7,2,6][0,4,5][1,8,3]] - f(n) = 23 + 6 = 29
[[7,2,6][1,4,5][8,0,3]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,2][3,5,1][4,6,8]]
Generated Nodes:
[[7,2,0][3,5,1][4,6,8]] - f(n) = 22 + 6 = 28
[[0,7,2][3,5,1][4,6,8]] - f(n) = 22 + 7 = 29
[[7,5,2][3,0,1][4,6,8]] - Already visited Node!
Node Chosen for Level 22 - [[2,8,6][7,5,0][3,4,1]]
```

```
Generated Nodes:
[[2,8,0][7,5,6][3,4,1]] - f(n) = 22 + 6 = 28
[[2,8,6][7,0,5][3,4,1]] - Already visited Node!
[[2,8,6][7,5,1][3,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,8,1][7,5,0][3,6,4]]
Generated Nodes:
[[2,8,0][7,5,1][3,6,4]] - f(n) = 22 + 7 = 29
[[2,8,1][7,0,5][3,6,4]] - Already visited Node!
[[2,8,1][7,5,4][3,6,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,1,4][7,5,0][8,3,6]]
Generated Nodes:
[[2,1,0][7,5,4][8,3,6]] - f(n) = 22 + 7 = 29
[[2,1,4][7,0,5][8,3,6]] - Already visited Node!
[[2,1,4][7,5,6][8,3,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 23 - [[4,2,0][8,7,6][3,5,1]]
Generated Nodes:
[[4,0,2][8,7,6][3,5,1]] - Already visited Node!
[[4,2,6][8,7,0][3,5,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,2][4,8,6][3,5,1]]
Generated Nodes:
[[7,0,2][4,8,6][3,5,1]] - f(n) = 23 + 6 = 29
[[4,7,2][0,8,6][3,5,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][5,1,6][8,3,4]]
Generated Nodes:
[[7,0,2][5,1,6][8,3,4]] - f(n) = 23 + 7 = 30
[[7,2,6][5,1,0][8,3,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][5,3,1][0,8,4]]
Generated Nodes:
[[7,2,6][0,3,1][5,8,4]] - f(n) = 23 + 6 = 29
[[7,2,6][5,3,1][8,0,4]] - Already visited Node!
```

Node Chosen for Level 23 - [[7,2,1][5,4,6][8,3,0]]

```
Generated Nodes:
[[7,2,1][5,4,0][8,3,6]] - Already visited Node!
[[7,2,1][5,4,6][8,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,1][5,3,4][0,8,6]]
Generated Nodes:
[[7,2,1][0,3,4][5,8,6]] - f(n) = 23 + 6 = 29
[[7,2,1][5,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,8,7][2,5,0][3,1,6]]
Generated Nodes:
[[4,8,0][2,5,7][3,1,6]] - f(n) = 22 + 7 = 29
[[4,8,7][2,0,5][3,1,6]] - Already visited Node!
[[4,8,7][2,5,6][3,1,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[7,0,6][8,5,4][3,2,1]]
Generated Nodes:
[[7,6,0][8,5,4][3,2,1]] - f(n) = 22 + 7 = 29
[[0,7,6][8,5,4][3,2,1]] - f(n) = 22 + 7 = 29
[[7,5,6][8,0,4][3,2,1]] - Already visited Node!
Node Chosen for Level 22 - [[2,7,4][0,5,1][8,3,6]]
Generated Nodes:
[[0,7,4][2,5,1][8,3,6]] - f(n) = 22 + 7 = 29
[[2,7,4][5,0,1][8,3,6]] - Already visited Node!
[[2,7,4][8,5,1][0,3,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[1,2,0][8,7,5][3,6,4]]
Generated Nodes:
[[1,0,2][8,7,5][3,6,4]] - Already visited Node!
[[1,2,5][8,7,0][3,6,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,8][3,4,6][1,5,0]]
Generated Nodes:
[[7,2,8][3,4,0][1,5,6]] - Already visited Node!
[[7,2,8][3,4,6][1,0,5]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[3,2,0][5,7,6][1,4,8]]
```

```
Generated Nodes:
[[3,0,2][5,7,6][1,4,8]] - Already visited Node!
[[3,2,6][5,7,0][1,4,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[7,0,2][3,5,4][6,1,8]]
Generated Nodes:
[[7,2,0][3,5,4][6,1,8]] - f(n) = 22 + 6 = 28
[[0,7,2][3,5,4][6,1,8]] - f(n) = 22 + 7 = 29
[[7,5,2][3,0,4][6,1,8]] - Already visited Node!
Node Chosen for Level 23 - [[3,2,0][5,7,1][6,8,4]]
Generated Nodes:
[[3,0,2][5,7,1][6,8,4]] - Already visited Node!
[[3,2,1][5,7,0][6,8,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[4,0,2][8,5,6][7,3,1]]
Generated Nodes:
[[4,2,0][8,5,6][7,3,1]] - f(n) = 24 + 4 = 28
[[0,4,2][8,5,6][7,3,1]] - Already visited Node!
[[4,5,2][8,0,6][7,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][1,3,4][5,8,6]]
Generated Nodes:
[[7,0,2][1,3,4][5,8,6]] - Already visited Node!
[[7,2,4][1,3,0][5,8,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,8,2][4,0,6][1,7,3]]
Generated Nodes:
[[5,0,2][4,8,6][1,7,3]] - f(n) = 23 + 6 = 29
[[5,8,2][4,6,0][1,7,3]] - f(n) = 23 + 7 = 30
[[5,8,2][0,4,6][1,7,3]] - Already visited Node!
[[5,8,2][4,7,6][1,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,1][6,3,5][0,8,4]]
Generated Nodes:
[[7,2,1][0,3,5][6,8,4]] - Already visited Node!
[[7,2,1][6,3,5][8,0,4]] - Already visited Node!
Node Chosen for Level 24 - [[2,3,4][0,5,1][7,8,6]]
```

```
Generated Nodes :
```

```
[[0,3,4][2,5,1][7,8,6]] - f(n) = 24 + 5 = 29

[[2,3,4][5,0,1][7,8,6]] - Already visited Node!

[[2,3,4][7,5,1][0,8,6]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 23 - [[1,5,2][7,0,4][3,8,6]]

Generated Nodes:

[[1,0,2][7,5,4][3,8,6]] - f(n) = 23 + 5 = 28 [[1,5,2][7,4,0][3,8,6]] - f(n) = 23 + 6 = 29 [[1,5,2][0,7,4][3,8,6]] - f(n) = 23 + 6 = 29[[1,5,2][7,8,4][3,0,6]] - Already visited Node!

Node Chosen for Level 24 - [[8,2,6][0,5,4][7,3,1]]

Generated Nodes:

[[0,2,6][8,5,4][7,3,1]] - f(n) = 24 + 5 = 29 [[8,2,6][5,0,4][7,3,1]] - Already visited Node![[8,2,6][7,5,4][0,3,1]] - f(n) = 24 + 6 = 30

Node Chosen for Level 24 - [[3,2,4][0,5,6][1,7,8]]

Generated Nodes:

[[0,2,4][3,5,6][1,7,8]] - f(n) = 24 + 5 = 29 [[3,2,4][5,0,6][1,7,8]] - Already visited Node![[3,2,4][1,5,6][0,7,8]] - f(n) = 24 + 5 = 29

Node Chosen for Level 24 - [[7,0,2][4,5,1][3,8,6]]

Generated Nodes:

[[7,2,0][4,5,1][3,8,6]] - f(n) = 24 + 4 = 28 [[0,7,2][4,5,1][3,8,6]] - f(n) = 24 + 5 = 29[[7,5,2][4,0,1][3,8,6]] - Already visited Node!

Node Chosen for Level 23 - [[1,2,0][5,7,3][8,6,4]]

Generated Nodes:

[[1,0,2][5,7,3][8,6,4]] - Already visited Node! [[1,2,3][5,7,0][8,6,4]] - f(n) = 23 + 5 = 28

Node Chosen for Level 23 - [[1,7,2][5,6,3][0,8,4]]

Generated Nodes:

[[1,7,2][0,6,3][5,8,4]] - f(n) = 23 + 6 = 29

```
[[1,7,2][5,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 25 - [[3,2,0][1,5,4][7,8,6]]
Generated Nodes:
[[3,0,2][1,5,4][7,8,6]] - Already visited Node!
[[3,2,4][1,5,0][7,8,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 26 - [[1,2,4][0,5,6][7,3,8]]
Generated Nodes:
[[0,2,4][1,5,6][7,3,8]] - f(n) = 26 + 4 = 30
[[1,2,4][5,0,6][7,3,8]] - Already visited Node!
[[1,2,4][7,5,6][0,3,8]] - f(n) = 26 + 4 = 30
Node Chosen for Level 26 - [[1,2,6][0,5,4][7,8,3]]
Generated Nodes:
[[0,2,6][1,5,4][7,8,3]] - f(n) = 26 + 4 = 30
[[1,2,6][5,0,4][7,8,3]] - Already visited Node!
[[1,2,6][7,5,4][0,8,3]] - f(n) = 26 + 4 = 30
Node Chosen for Level 25 - [[7,2,3][4,1,5][0,8,6]]
Generated Nodes:
[[7,2,3][0,1,5][4,8,6]] - f(n) = 25 + 5 = 30
[[7,2,3][4,1,5][8,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[1,3,2][0,7,4][8,5,6]]
Generated Nodes:
[[0,3,2][1,7,4][8,5,6]] - Already visited Node!
[[1,3,2][7,0,4][8,5,6]] - f(n) = 22 + 7 = 29
[[1,3,2][8,7,4][0,5,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[7,2,4][1,6,3][0,8,5]]
Generated Nodes:
[[7,2,4][0,6,3][1,8,5]] - f(n) = 23 + 6 = 29
[[7,2,4][1,6,3][8,0,5]] - Already visited Node!
Node Chosen for Level 23 - [[2,4,5][7,3,6][1,8,0]]
Generated Nodes:
[[2,4,5][7,3,0][1,8,6]] - Already visited Node!
```

```
[[2,4,5][7,3,6][1,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,5][8,0,6][4,3,1]]
Generated Nodes:
[[7,0,5][8,2,6][4,3,1]] - Already visited Node!
[[7,2,5][8,6,0][4,3,1]] - f(n) = 23 + 7 = 30
[[7,2,5][0,8,6][4,3,1]] - f(n) = 23 + 6 = 29
[[7,2,5][8,3,6][4,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,4][7,6,3][0,8,1]]
Generated Nodes:
[[5,2,4][0,6,3][7,8,1]] - f(n) = 23 + 5 = 28
[[5,2,4][7,6,3][8,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[2,4,8][5,1,6][7,3,0]]
Generated Nodes:
[[2,4,8][5,1,0][7,3,6]] - Already visited Node!
[[2,4,8][5,1,6][7,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[2,1,4][5,8,6][7,3,0]]
Generated Nodes:
[[2,1,4][5,8,0][7,3,6]] - Already visited Node!
[[2,1,4][5,8,6][7,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,4,8][1,2,6][7,3,0]]
Generated Nodes:
[[5,4,8][1,2,0][7,3,6]] - Already visited Node!
[[5,4,8][1,2,6][7,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[3,2,0][5,7,6][1,4,8]]
Generated Nodes:
[[3,0,2][5,7,6][1,4,8]] - Already visited Node!
[[3,2,6][5,7,0][1,4,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,7,2][4,0,6][5,1,8]]
Generated Nodes:
[[3,0,2][4,7,6][5,1,8]] - f(n) = 23 + 6 = 29
[[3,7,2][4,6,0][5,1,8]] - f(n) = 23 + 7 = 30
```

```
[[3,7,2][0,4,6][5,1,8]] - Already visited Node!
[[3,7,2][4,1,6][5,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,0][7,6,1][4,8,3]]
Generated Nodes:
[[5,0,2][7,6,1][4,8,3]] - Already visited Node!
[[5,2,1][7,6,0][4,8,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[8,7,6][2,5,0][3,4,1]]
Generated Nodes:
[[8,7,0][2,5,6][3,4,1]] - f(n) = 22 + 6 = 28
[[8,7,6][2,0,5][3,4,1]] - Already visited Node!
[[8,7,6][2,5,1][3,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,6,7][0,5,2][3,4,1]]
Generated Nodes:
[[0,6,7][8,5,2][3,4,1]] - f(n) = 22 + 7 = 29
[[8,6,7][5,0,2][3,4,1]] - Already visited Node!
[[8,6,7][3,5,2][0,4,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,1][2,5,0][3,6,4]]
Generated Nodes:
[[8,7,0][2,5,1][3,6,4]] - f(n) = 22 + 7 = 29
[[8,7,1][2,0,5][3,6,4]] - Already visited Node!
[[8,7,1][2,5,4][3,6,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[7,2,6][3,0,1][5,8,4]]
Generated Nodes:
[[7,0,6][3,2,1][5,8,4]] - f(n) = 23 + 7 = 30
[[7,2,6][3,1,0][5,8,4]] - f(n) = 23 + 6 = 29
[[7,2,6][0,3,1][5,8,4]] - f(n) = 23 + 6 = 29
[[7,2,6][3,8,1][5,0,4]] - Already visited Node!
Node Chosen for Level 22 - [[2,4,8][0,5,7][3,1,6]]
Generated Nodes:
[[0,4,8][2,5,7][3,1,6]] - f(n) = 22 + 7 = 29
[[2,4,8][5,0,7][3,1,6]] - Already visited Node!
[[2,4,8][3,5,7][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,3][7,8,2][1,6,4]]
```

```
Generated Nodes:
```

```
[[5,3,0][7,8,2][1,6,4]] - Already visited Node!
[[0,5,3][7,8,2][1,6,4]] - f(n) = 22 + 7 = 29
[[5,8,3][7,0,2][1,6,4]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 23 - [[3,8,2][4,7,6][0,5,1]]

Generated Nodes:

$$[[3,8,2][0,7,6][4,5,1]]$$
 - Already visited Node! $[[3,8,2][4,7,6][5,0,1]]$ - $f(n)$ = 23 + 6 = 29

Node Chosen for Level 23 - [[7,2,0][8,3,6][4,5,1]]

Generated Nodes:

```
[[7,0,2][8,3,6][4,5,1]] - Already visited Node!
[[7,2,6][8,3,0][4,5,1]] - f(n) = 23 + 7 = 30
```

Node Chosen for Level 23 - [[7,2,1][3,0,4][5,8,6]]

Generated Nodes:

```
[[7,0,1][3,2,4][5,8,6]] - f(n) = 23 + 7 = 30
[[7,2,1][3,4,0][5,8,6]] - f(n) = 23 + 6 = 29
[[7,2,1][0,3,4][5,8,6]] - f(n) = 23 + 6 = 29
[[7,2,1][3,8,4][5,0,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[1,8,5][0,7,2][4,3,6]]

Generated Nodes:

[[0,8,5][1,7,2][4,3,6]] - Already visited Node! [[1,8,5][7,0,2][4,3,6]] - f(n) = 22 + 7 = 29

[[1,8,5][4,7,2][0,3,6]] - f(n) = 22 + 6 = 28

Node Chosen for Level 22 - [[7,6,4][8,5,0][3,2,1]]

Generated Nodes:

```
[[7,6,0][8,5,4][3,2,1]] - f(n) = 22 + 7 = 29
[[7,6,4][8,0,5][3,2,1]] - Already visited Node!
[[7,6,4][8,5,1][3,2,0]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[7,0,4][2,5,1][8,3,6]]

Generated Nodes:

$$[[7,4,0][2,5,1][8,3,6]] - f(n) = 22 + 7 = 29$$

 $[[0,7,4][2,5,1][8,3,6]] - f(n) = 22 + 7 = 29$

```
[[7,5,4][2,0,1][8,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[1,7,5][0,6,2][8,4,3]]
Generated Nodes:
[[0,7,5][1,6,2][8,4,3]] - Already visited Node!
[[1,7,5][6,0,2][8,4,3]] - f(n) = 22 + 7 = 29
[[1,7,5][8,6,2][0,4,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 24 - [[8,0,4][2,5,6][7,3,1]]
Generated Nodes:
[[8,4,0][2,5,6][7,3,1]] - f(n) = 24 + 5 = 29
[[0,8,4][2,5,6][7,3,1]] - Already visited Node!
[[8,5,4][2,0,6][7,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,8][3,0,6][1,4,5]]
Generated Nodes:
[[7,0,8][3,2,6][1,4,5]] - f(n) = 23 + 7 = 30
[[7,2,8][3,6,0][1,4,5]] - Already visited Node!
[[7,2,8][0,3,6][1,4,5]] - f(n) = 23 + 6 = 29
[[7,2,8][3,4,6][1,0,5]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[8,1,7][0,5,2][3,6,4]]
Generated Nodes:
[[0,1,7][8,5,2][3,6,4]] - f(n) = 22 + 7 = 29
[[8,1,7][5,0,2][3,6,4]] - Already visited Node!
[[8,1,7][3,5,2][0,6,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[7,3,5][4,2,6][8,1,0]]
Generated Nodes:
[[7,3,5][4,2,0][8,1,6]] - Already visited Node!
[[7,3,5][4,2,6][8,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,3,5][4,1,2][0,8,6]]
Generated Nodes:
[[7,3,5][0,1,2][4,8,6]] - f(n) = 23 + 7 = 30
[[7,3,5][4,1,2][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,5][4,6,2][0,8,1]]
Generated Nodes:
```

```
[[3,7,5][0,6,2][4,8,1]] - Already visited Node!
[[3,7,5][4,6,2][8,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][7,3,6][8,1,4]]
Generated Nodes:
[[5,0,2][7,3,6][8,1,4]] - f(n) = 23 + 7 = 30
[[5,2,6][7,3,0][8,1,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][3,8,6][4,1,5]]
Generated Nodes:
[[7,0,2][3,8,6][4,1,5]] - f(n) = 23 + 7 = 30
[[7,2,6][3,8,0][4,1,5]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,4][3,5,8][1,2,6]]
Generated Nodes:
[[7,4,0][3,5,8][1,2,6]] - f(n) = 22 + 7 = 29
[[0,7,4][3,5,8][1,2,6]] - f(n) = 22 + 7 = 29
[[7,5,4][3,0,8][1,2,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][8,4,6][5,3,1]]
Generated Nodes:
[[7,0,2][8,4,6][5,3,1]] - Already visited Node!
[[7,2,6][8,4,0][5,3,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,3,7][4,0,2][1,8,6]]
Generated Nodes:
[[5,0,7][4,3,2][1,8,6]] - f(n) = 23 + 6 = 29
[[5,3,7][4,2,0][1,8,6]] - f(n) = 23 + 6 = 29
[[5,3,7][0,4,2][1,8,6]] - Already visited Node!
[[5,3,7][4,8,2][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,4,7][5,2,6][1,8,0]]
Generated Nodes:
[[3,4,7][5,2,0][1,8,6]] - Already visited Node!
[[3,4,7][5,2,6][1,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,4][1,6,3][0,8,5]]
Generated Nodes:
```

```
[[7,2,4][0,6,3][1,8,5]] - f(n) = 23 + 6 = 29
[[7,2,4][1,6,3][8,0,5]] - Already visited Node!
Node Chosen for Level 23 - [[1,4,7][5,2,6][8,3,0]]
Generated Nodes:
[[1,4,7][5,2,0][8,3,6]] - Already visited Node!
[[1,4,7][5,2,6][8,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,4,7][5,3,2][0,8,6]]
Generated Nodes:
[[1,4,7][0,3,2][5,8,6]] - f(n) = 23 + 6 = 29
[[1,4,7][5,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,2,0][5,7,3][8,6,4]]
Generated Nodes:
[[1,0,2][5,7,3][8,6,4]] - Already visited Node!
[[1,2,3][5,7,0][8,6,4]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[1,7,2][5,6,3][0,8,4]]
Generated Nodes:
[[1,7,2][0,6,3][5,8,4]] - f(n) = 23 + 6 = 29
[[1,7,2][5,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,6,5][4,2,1][0,8,3]]
Generated Nodes:
[[7,6,5][0,2,1][4,8,3]] - f(n) = 23 + 7 = 30
[[7,6,5][4,2,1][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,2][7,1,6][3,8,0]]
Generated Nodes:
[[5,4,2][7,1,0][3,8,6]] - f(n) = 23 + 7 = 30
[[5,4,2][7,1,6][3,0,8]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,2][3,5,7][1,4,6]]
Generated Nodes:
[[8,2,0][3,5,7][1,4,6]] - Already visited Node!
[[0,8,2][3,5,7][1,4,6]] - f(n) = 22 + 7 = 29
```

```
[[8,5,2][3,0,7][1,4,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,4,7][3,5,0][1,6,2]]
Generated Nodes:
[[8,4,0][3,5,7][1,6,2]] - f(n) = 22 + 7 = 29
[[8,4,7][3,0,5][1,6,2]] - Already visited Node!
[[8,4,7][3,5,2][1,6,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,4][3,5,0][1,2,6]]
Generated Nodes:
[[8,7,0][3,5,4][1,2,6]] - f(n) = 22 + 7 = 29
[[8,7,4][3,0,5][1,2,6]] - Already visited Node!
[[8,7,4][3,5,6][1,2,0]] - f(n) = 22 + 6 = 28
Node Chosen for Level 22 - [[4,5,2][0,1,8][7,3,6]]
Generated Nodes:
[[0,5,2][4,1,8][7,3,6]] - f(n) = 22 + 6 = 28
[[4,5,2][1,0,8][7,3,6]] - f(n) = 22 + 7 = 29
[[4,5,2][7,1,8][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,8,4][3,5,0][1,6,2]]
Generated Nodes:
[[7,8,0][3,5,4][1,6,2]] - f(n) = 22 + 7 = 29
[[7,8,4][3,0,5][1,6,2]] - Already visited Node!
[[7,8,4][3,5,2][1,6,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,4][1,5,0][3,6,2]]
Generated Nodes:
[[8,7,0][1,5,4][3,6,2]] - f(n) = 22 + 7 = 29
[[8,7,4][1,0,5][3,6,2]] - Already visited Node!
[[8,7,4][1,5,2][3,6,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[1,0,4][7,8,5][3,6,2]]
Generated Nodes:
[[1,4,0][7,8,5][3,6,2]] - f(n) = 22 + 7 = 29
[[0,1,4][7,8,5][3,6,2]] - Already visited Node!
[[1,8,4][7,0,5][3,6,2]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,1][8,5,4][3,6,2]]
```

```
Generated Nodes:
[[7,1,0][8,5,4][3,6,2]] - Already visited Node!
[[0,7,1][8,5,4][3,6,2]] - f(n) = 22 + 7 = 29
[[7,5,1][8,0,4][3,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[4,0,2][7,5,1][8,3,6]]
Generated Nodes:
[[4,2,0][7,5,1][8,3,6]] - f(n) = 22 + 6 = 28
[[0,4,2][7,5,1][8,3,6]] - f(n) = 22 + 7 = 29
[[4,5,2][7,0,1][8,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,8][3,5,2][1,4,6]]
Generated Nodes:
[[7,8,0][3,5,2][1,4,6]] - f(n) = 22 + 7 = 29
[[0,7,8][3,5,2][1,4,6]] - f(n) = 22 + 7 = 29
[[7,5,8][3,0,2][1,4,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,4,7][0,5,2][3,1,6]]
Generated Nodes:
[[0,4,7][8,5,2][3,1,6]] - f(n) = 22 + 7 = 29
[[8,4,7][5,0,2][3,1,6]] - Already visited Node!
[[8,4,7][3,5,2][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,0,2][8,5,4][1,7,6]]
Generated Nodes:
[[3,2,0][8,5,4][1,7,6]] - f(n) = 22 + 6 = 28
[[0,3,2][8,5,4][1,7,6]] - f(n) = 22 + 7 = 29
[[3,5,2][8,0,4][1,7,6]] - Already visited Node!
Node Chosen for Level 22 - [[3,5,2][1,8,4][7,0,6]]
Generated Nodes:
[[3,5,2][1,0,4][7,8,6]] - Already visited Node!
[[3,5,2][1,8,4][7,6,0]] - f(n) = 22 + 7 = 29
[[3,5,2][1,8,4][0,7,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,3,2][0,5,4][1,7,6]]
Generated Nodes:
```

[[0,3,2][8,5,4][1,7,6]] - f(n) = 22 + 7 = 29[[8,3,2][5,0,4][1,7,6]] - Already visited Node!

```
[[8,3,2][1,5,4][0,7,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,8][1,5,2][3,6,4]]
Generated Nodes:
[[7,8,0][1,5,2][3,6,4]] - f(n) = 22 + 7 = 29
[[0,7,8][1,5,2][3,6,4]] - f(n) = 22 + 7 = 29
[[7,5,8][1,0,2][3,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[1,0,8][5,7,2][3,6,4]]
Generated Nodes:
[[1,8,0][5,7,2][3,6,4]] - f(n) = 22 + 7 = 29
[[0,1,8][5,7,2][3,6,4]] - Already visited Node!
[[1,7,8][5,0,2][3,6,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,1,8][0,6,2][7,3,4]]
Generated Nodes:
[[0,1,8][5,6,2][7,3,4]] - f(n) = 22 + 7 = 29
[[5,1,8][6,0,2][7,3,4]] - f(n) = 22 + 7 = 29
[[5,1,8][7,6,2][0,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,3][7,8,2][1,6,4]]
Generated Nodes:
[[5,3,0][7,8,2][1,6,4]] - Already visited Node!
[[0,5,3][7,8,2][1,6,4]] - f(n) = 22 + 7 = 29
[[5,8,3][7,0,2][1,6,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,3,2][0,6,8][7,1,4]]
Generated Nodes:
[[0,3,2][5,6,8][7,1,4]] - f(n) = 22 + 7 = 29
[[5,3,2][6,0,8][7,1,4]] - f(n) = 22 + 7 = 29
[[5,3,2][7,6,8][0,1,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,2][1,5,3][6,4,8]]
Generated Nodes:
[[7,2,0][1,5,3][6,4,8]] - f(n) = 22 + 6 = 28
[[0,7,2][1,5,3][6,4,8]] - f(n) = 22 + 7 = 29
[[7,5,2][1,0,3][6,4,8]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,2][1,5,7][3,6,4]]
```

```
Generated Nodes:
```

```
[[8,2,0][1,5,7][3,6,4]] - Already visited Node! [[0,8,2][1,5,7][3,6,4]] - f(n) = 22 + 7 = 29 [[8,5,2][1,0,7][3,6,4]] - Already visited Node!
```

Node Chasen for Lovel 22 [[1 9 7][0 2 5][2 6 4]]

Node Chosen for Level 22 - [[1,8,7][0,2,5][3,6,4]]

Generated Nodes:

```
[[0,8,7][1,2,5][3,6,4]] - Already visited Node! [[1,8,7][2,0,5][3,6,4]] - f(n) = 22 + 7 = 29 [[1,8,7][3,2,5][0,6,4]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[8 7 1][2 5 0][3 6 4]]

Node Chosen for Level 22 - [[8,7,1][2,5,0][3,6,4]]

Generated Nodes:

[[8,7,0][2,5,1][3,6,4]] - f(n) = 22 + 7 = 29

[[8,7,1][2,0,5][3,6,4]] - Already visited Node!

[[8,7,1][2,5,4][3,6,0]] - f(n) = 22 + 7 = 29

Node Chosen for Level 22 - [[1,0,5][7,8,4][3,2,6]]

Generated Nodes:

```
[[1,5,0][7,8,4][3,2,6]] - f(n) = 22 + 7 = 29

[[0,1,5][7,8,4][3,2,6]] - Already visited Node!

[[1,8,5][7,0,4][3,2,6]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[1,0,5][7,2,4][8,3,6]]

Generated Nodes:

[[1,5,0][7,2,4][8,3,6]] - f(n) = 22 + 7 = 29[[0,1,5][7,2,4][8,3,6]] - Already visited Node!

[[1,2,5][7,0,4][8,3,6]] - f(n) = 22 + 6 = 28

Node Chosen for Level 22 - [[7,6,1][8,5,0][3,4,2]]

Generated Nodes:

```
[[7,6,0][8,5,1][3,4,2]] - f(n) = 22 + 7 = 29

[[7,6,1][8,0,5][3,4,2]] - Already visited Node!

[[7,6,1][8,5,2][3,4,0]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[7,0,2][6,5,4][8,1,3]]

Generated Nodes:

$$[[7,2,0][6,5,4][8,1,3]] - f(n) = 22 + 6 = 28$$

 $[[0,7,2][6,5,4][8,1,3]] - f(n) = 22 + 7 = 29$

```
[[7,5,2][6,0,4][8,1,3]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,2][6,5,3][8,4,1]]
Generated Nodes:
[[7,2,0][6,5,3][8,4,1]] - f(n) = 22 + 6 = 28
[[0,7,2][6,5,3][8,4,1]] - f(n) = 22 + 7 = 29
[[7,5,2][6,0,3][8,4,1]] - Already visited Node!
Node Chosen for Level 22 - [[1,0,2][5,8,4][3,7,6]]
Generated Nodes:
[[1,2,0][5,8,4][3,7,6]] - f(n) = 22 + 6 = 28
[[0,1,2][5,8,4][3,7,6]] - Already visited Node!
[[1,8,2][5,0,4][3,7,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,2][8,5,3][6,1,4]]
Generated Nodes:
[[7,2,0][8,5,3][6,1,4]] - f(n) = 22 + 6 = 28
[[0,7,2][8,5,3][6,1,4]] - f(n) = 22 + 7 = 29
[[7,5,2][8,0,3][6,1,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,0][3,8,6][4,7,1]]
Generated Nodes:
[[5,0,2][3,8,6][4,7,1]] - Already visited Node!
[[5,2,6][3,8,0][4,7,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][8,4,6][3,7,1]]
Generated Nodes:
[[5,0,2][8,4,6][3,7,1]] - Already visited Node!
[[5,2,6][8,4,0][3,7,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,4][3,6,7][1,8,0]]
Generated Nodes:
[[5,2,4][3,6,0][1,8,7]] - f(n) = 23 + 6 = 29
[[5,2,4][3,6,7][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,7,1][6,8,0]]
Generated Nodes:
[[5,2,4][3,7,0][6,8,1]] - f(n) = 23 + 6 = 29
```

```
[[5,2,4][3,7,1][6,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[4,5,2][7,3,6][1,8,0]]
Generated Nodes:
[[4,5,2][7,3,0][1,8,6]] - Already visited Node!
[[4,5,2][7,3,6][1,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,3,5][7,2,6][1,8,0]]
Generated Nodes:
[[4,3,5][7,2,0][1,8,6]] - Already visited Node!
[[4,3,5][7,2,6][1,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,7,5][4,0,6][8,3,1]]
Generated Nodes:
[[2,0,5][4,7,6][8,3,1]] - f(n) = 23 + 6 = 29
[[2,7,5][4,6,0][8,3,1]] - f(n) = 23 + 7 = 30

[[2,7,5][0,4,6][8,3,1]] - Already visited Node!
[[2,7,5][4,3,6][8,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,0][3,8,6][4,7,1]]
Generated Nodes:
[[5,0,2][3,8,6][4,7,1]] - Already visited Node!
[[5,2,6][3,8,0][4,7,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,4][8,1,6][3,7,0]]
Generated Nodes:
[[5,2,4][8,1,0][3,7,6]] - Already visited Node!
[[5,2,4][8,1,6][3,0,7]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,4][7,6,3][0,8,1]]
Generated Nodes:
[[5,2,4][0,6,3][7,8,1]] - f(n) = 23 + 5 = 28
[[5,2,4][7,6,3][8,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,8][1,2,6][7,3,0]]
Generated Nodes:
[[5,4,8][1,2,0][7,3,6]] - Already visited Node!
[[5,4,8][1,2,6][7,0,3]] - f(n) = 23 + 6 = 29
```

```
Node Chosen for Level 23 - [[5,2,0][1,8,3][7,6,4]]
Generated Nodes:
[[5,0,2][1,8,3][7,6,4]] - Already visited Node!
[[5,2,3][1,8,0][7,6,4]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[4,5,2][7,3,6][1,8,0]]
Generated Nodes:
[[4,5,2][7,3,0][1,8,6]] - Already visited Node!
[[4,5,2][7,3,6][1,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,3,5][7,2,6][1,8,0]]
Generated Nodes:
[[4,3,5][7,2,0][1,8,6]] - Already visited Node!
[[4,3,5][7,2,6][1,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,1][7,0,6][3,4,8]]
Generated Nodes:
[[5,0,1][7,2,6][3,4,8]] - f(n) = 23 + 7 = 30
[[5,2,1][7,6,0][3,4,8]] - Already visited Node!
[[5,2,1][0,7,6][3,4,8]] - f(n) = 23 + 6 = 29
[[5,2,1][7,4,6][3,0,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,5,2][7,0,4][3,8,6]]
Generated Nodes:
[[1,0,2][7,5,4][3,8,6]] - f(n) = 23 + 5 = 28
[[1,5,2][7,4,0][3,8,6]] - f(n) = 23 + 6 = 29
[[1,5,2][0,7,4][3,8,6]] - f(n) = 23 + 6 = 29
[[1,5,2][7,8,4][3,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,2,8][7,0,5][3,6,4]]
Generated Nodes:
[[1,0,8][7,2,5][3,6,4]] - Already visited Node!
[[1,2,8][7,5,0][3,6,4]] - Already visited Node!
[[1,2,8][0,7,5][3,6,4]] - f(n) = 23 + 6 = 29
[[1,2,8][7,6,5][3,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,8,5][7,0,6][3,4,2]]
```

Generated Nodes:

```
[[1,0,5][7,8,6][3,4,2]] - Already visited Node!
[[1,8,5][7,6,0][3,4,2]] - Already visited Node!
[[1,8,5][0,7,6][3,4,2]] - f(n) = 23 + 6 = 29
[[1,8,5][7,4,6][3,0,2]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,7,5][8,2,6][3,4,0]]
Generated Nodes:
[[1,7,5][8,2,0][3,4,6]] - Already visited Node!
[[1,7,5][8,2,6][3,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[3,0,2][4,5,7][1,8,6]]
Generated Nodes:
[[3,2,0][4,5,7][1,8,6]] - Already visited Node!
[[0,3,2][4,5,7][1,8,6]] - f(n) = 24 + 5 = 29
[[3,5,2][4,0,7][1,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[1,5,2][0,8,6][7,4,3]]
Generated Nodes:
[[0,5,2][1,8,6][7,4,3]] - Already visited Node!
[[1,5,2][8,0,6][7,4,3]] - f(n) = 24 + 5 = 29
[[1,5,2][7,8,6][0,4,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,0,2][4,5,7][8,3,6]]
Generated Nodes:
[[1,2,0][4,5,7][8,3,6]] - Already visited Node!
[[0,1,2][4,5,7][8,3,6]] - f(n) = 24 + 6 = 30
[[1,5,2][4,0,7][8,3,6]] - Already visited Node!
Node Chosen for Level 25 - [[3,5,2][4,0,6][7,8,1]]
Generated Nodes:
[[3,0,2][4,5,6][7,8,1]] - Already visited Node!
[[3,5,2][4,6,0][7,8,1]] - f(n) = 25 + 5 = 30
[[3,5,2][0,4,6][7,8,1]] - Already visited Node!
[[3,5,2][4,8,6][7,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 23 - [[7,2,5][4,0,8][3,1,6]]
Generated Nodes:
[[7,0,5][4,2,8][3,1,6]] - Already visited Node!
[[7,2,5][4,8,0][3,1,6]] - f(n) = 23 + 6 = 29
```

```
[[7,2,5][0,4,8][3,1,6]] - f(n) = 23 + 7 = 30
[[7,2,5][4,1,8][3,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,0][3,8,6][1,4,7]]
Generated Nodes:
[[5,0,2][3,8,6][1,4,7]] - Already visited Node!
[[5,2,6][3,8,0][1,4,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,8,2][4,0,6][3,1,7]]
Generated Nodes:
[[5,0,2][4,8,6][3,1,7]] - f(n) = 23 + 6 = 29
[[5,8,2][4,6,0][3,1,7]] - f(n) =
                                  23 + 7 = 30
[[5,8,2][0,4,6][3,1,7]] - Already visited Node!
[[5,8,2][4,1,6][3,0,7]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,1,5][3,0,6][4,8,2]]
Generated Nodes:
[[7,0,5][3,1,6][4,8,2]] - f(n) = 23 + 6 = 29
[[7,1,5][3,6,0][4,8,2]] - f(n) = 23 + 7 = 30
[[7,1,5][0,3,6][4,8,2]] - f(n) = 23 + 6 = 29
[[7,1,5][3,8,6][4,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,1,5][4,0,6][8,3,2]]
Generated Nodes:
[[7,0,5][4,1,6][8,3,2]] - f(n) = 23 + 6 = 29
[[7,1,5][4,6,0][8,3,2]] - f(n) = 23 + 7 = 30
[[7,1,5][0,4,6][8,3,2]] - Already visited Node!
[[7,1,5][4,3,6][8,0,2]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,1][7,6,4][0,8,3]]
Generated Nodes:
[[5,2,1][0,6,4][7,8,3]] - f(n) = 23 + 5 = 28
[[5,2,1][7,6,4][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,0][7,6,3][1,8,4]]
Generated Nodes:
[[5,0,2][7,6,3][1,8,4]] - Already visited Node!
[[5,2,3][7,6,0][1,8,4]] - f(n) = 23 + 5 = 28
Node Chosen for Level 25 - [[7,2,1][4,5,3][0,8,6]]
```

```
Generated Nodes:
[[7,2,1][0,5,3][4,8,6]] - f(n) = 25 + 5 = 30
[[7,2,1][4,5,3][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,4][2,3,5][0,8,6]]
Generated Nodes:
[[1,7,4][0,3,5][2,8,6]] - f(n) = 23 + 6 = 29
[[1,7,4][2,3,5][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,2][4,5,8][0,1,6]]
Generated Nodes:
[[3,7,2][0,5,8][4,1,6]] - Already visited Node!
[[3,7,2][4,5,8][1,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[3,2,0][5,8,4][7,1,6]]
Generated Nodes:
[[3,0,2][5,8,4][7,1,6]] - Already visited Node!
[[3,2,4][5,8,0][7,1,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,3,2][8,4,6][7,1,0]]
Generated Nodes:
[[5,3,2][8,4,0][7,1,6]] - Already visited Node!
[[5,3,2][8,4,6][7,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[1,2,4][8,5,7][3,0,6]]
Generated Nodes:
[[1,2,4][8,0,7][3,5,6]] - Already visited Node!
[[1,2,4][8,5,7][3,6,0]] - f(n) = 24 + 5 = 29
[[1,2,4][8,5,7][0,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,8][2,5,6][3,1,0]]
Generated Nodes:
[[7,4,8][2,5,0][3,1,6]] - Already visited Node!
[[7,4,8][2,5,6][3,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[4,8,5][1,2,6][7,3,0]]
Generated Nodes:
```

```
[[4,8,5][1,2,0][7,3,6]] - Already visited Node!
[[4,8,5][1,2,6][7,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,4,8][1,2,6][7,3,0]]
Generated Nodes:
[[5,4,8][1,2,0][7,3,6]] - Already visited Node!
[[5,4,8][1,2,6][7,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[8,2,0][5,6,1][7,3,4]]
Generated Nodes:
[[8,0,2][5,6,1][7,3,4]] - Already visited Node!
[[8,2,1][5,6,0][7,3,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,0][6,8,1][7,3,4]]
Generated Nodes:
[[5,0,2][6,8,1][7,3,4]] - Already visited Node!
[[5,2,1][6,8,0][7,3,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,5,2][7,0,6][8,3,4]]
Generated Nodes:
[[1,0,2][7,5,6][8,3,4]] - f(n) = 23 + 5 = 28
[[1,5,2][7,6,0][8,3,4]] - Already visited Node!
[[1,5,2][0,7,6][8,3,4]] - f(n) = 23 + 6 = 29
[[1,5,2][7,3,6][8,0,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,6,5][7,3,2][0,8,4]]
Generated Nodes:
[[1,6,5][0,3,2][7,8,4]] - f(n) = 23 + 5 = 28
[[1,6,5][7,3,2][8,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,0][5,6,1][7,3,4]]
Generated Nodes:
[[8,0,2][5,6,1][7,3,4]] - Already visited Node!
[[8,2,1][5,6,0][7,3,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,0][6,8,1][7,3,4]]
Generated Nodes:
```

```
[[5,0,2][6,8,1][7,3,4]] - Already visited Node!
[[5,2,1][6,8,0][7,3,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,7,5][3,6,2][0,8,4]]
Generated Nodes:
[[1,7,5][0,6,2][3,8,4]] - f(n) = 23 + 6 = 29
[[1,7,5][3,6,2][8,0,4]] - Already visited Node!
Node Chosen for Level 24 - [[8,1,2][0,5,6][7,4,3]]
Generated Nodes:
[[0,1,2][8,5,6][7,4,3]] - f(n) = 24 + 5 = 29
[[8,1,2][5,0,6][7,4,3]] - Already visited Node!
[[8,1,2][7,5,6][0,4,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[4,2,0][8,5,6][7,3,1]]
Generated Nodes:
[[4,0,2][8,5,6][7,3,1]] - Already visited Node!
[[4,2,6][8,5,0][7,3,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[7,0,8][4,5,6][3,2,1]]
Generated Nodes:
[[7,8,0][4,5,6][3,2,1]] - f(n) = 24 + 5 = 29
[[0,7,8][4,5,6][3,2,1]] - f(n) = 24 + 5 = 29
[[7,5,8][4,0,6][3,2,1]] - Already visited Node!
Node Chosen for Level 23 - [[3,2,4][1,7,6][8,5,0]]
Generated Nodes:
[[3,2,4][1,7,0][8,5,6]] - Already visited Node!
[[3,2,4][1,7,6][8,0,5]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[3,7,2][1,4,6][0,8,5]]
Generated Nodes:
[[3,7,2][0,4,6][1,8,5]] - f(n) = 23 + 6 = 29
[[3,7,2][1,4,6][8,0,5]] - Already visited Node!
Node Chosen for Level 24 - [[1,7,4][2,5,6][8,0,3]]
Generated Nodes:
[[1,7,4][2,0,6][8,5,3]] - Already visited Node!
```

```
[[1,7,4][2,5,6][8,3,0]] - Already visited Node!
[[1,7,4][2,5,6][0,8,3]] - f(n) = 24 + 4 = 28
Node Chosen for Level 24 - [[2,0,3][7,5,4][1,8,6]]
Generated Nodes:
[[2,3,0][7,5,4][1,8,6]] - Already visited Node!
[[0,2,3][7,5,4][1,8,6]] - Already visited Node!
[[2,5,3][7,0,4][1,8,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,0,4][2,5,8][7,3,6]]
Generated Nodes:
[[1,4,0][2,5,8][7,3,6]] - f(n) = 24 + 5 = 29
[[0,1,4][2,5,8][7,3,6]] - Already visited Node!
[[1,5,4][2,0,8][7,3,6]] - Already visited Node!
Node Chosen for Level 24 - [[1,0,4][2,5,8][7,3,6]]
Generated Nodes:
[[1,4,0][2,5,8][7,3,6]] - f(n) = 24 + 5 = 29
[[0,1,4][2,5,8][7,3,6]] - Already visited Node!
[[1,5,4][2,0,8][7,3,6]] - Already visited Node!
Node Chosen for Level 26 - [[1,0,4][2,5,6][7,8,3]]
Generated Nodes:
[[1,4,0][2,5,6][7,8,3]] - f(n) = 26 + 3 = 29
[[0,1,4][2,5,6][7,8,3]] - Already visited Node!
[[1,5,4][2,0,6][7,8,3]] - Already visited Node!
Node Chosen for Level 26 - [[1,0,4][2,5,6][7,8,3]]
Generated Nodes:
[[1,4,0][2,5,6][7,8,3]] - f(n) = 26 + 3 = 29
[[0,1,4][2,5,6][7,8,3]] - Already visited Node!
[[1,5,4][2,0,6][7,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,1][7,2,6][0,8,3]]
Generated Nodes:
[[5,4,1][0,2,6][7,8,3]] - f(n) = 23 + 5 = 28
[[5,4,1][7,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[1,7,2][0,5,6][4,3,8]]
```

```
Generated Nodes:
[[0,7,2][1,5,6][4,3,8]] - Already visited Node!
[[1,7,2][5,0,6][4,3,8]] - f(n) = 24 + 6 = 30
[[1,7,2][4,5,6][0,3,8]] - f(n) = 24 + 4 = 28
Node Chosen for Level 23 - [[5,2,0][4,7,8][3,1,6]]
Generated Nodes:
[[5,0,2][4,7,8][3,1,6]] - Already visited Node!
[[5,2,8][4,7,0][3,1,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,2,8][4,7,5][3,1,6]]
Generated Nodes:
[[2,0,8][4,7,5][3,1,6]] - f(n) = 23 + 7 = 30
[[4,2,8][0,7,5][3,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,5,2][7,1,6][0,8,3]]
Generated Nodes:
[[4,5,2][0,1,6][7,8,3]] - Already visited Node!
[[4,5,2][7,1,6][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[4,1,5][7,2,6][0,8,3]]
Generated Nodes:
[[4,1,5][0,2,6][7,8,3]] - f(n) = 23 + 5 = 28
[[4,1,5][7,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,4][5,3,6][1,7,0]]
Generated Nodes:
[[8,2,4][5,3,0][1,7,6]] - Already visited Node!
[[8,2,4][5,3,6][1,0,7]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,2,8][7,0,6][3,1,4]]
Generated Nodes:
[[5,0,8][7,2,6][3,1,4]] - f(n) = 23 + 7 = 30
[[5,2,8][7,6,0][3,1,4]] - Already visited Node!
[[5,2,8][0,7,6][3,1,4]] - f(n) = 23 + 6 = 29
[[5,2,8][7,1,6][3,0,4]] - f(n) = 23 + 6 = 29
```

Node Chosen for Level 23 - [[7,5,1][4,2,6][8,3,0]]

```
[[7,5,1][4,2,0][8,3,6]] - Already visited Node!
[[7,5,1][4,2,6][8,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,5,1][4,3,2][0,8,6]]
Generated Nodes:
[[7,5,1][0,3,2][4,8,6]] - f(n) = 23 + 7 = 30
[[7,5,1][4,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,1][7,2,6][0,8,3]]
Generated Nodes:
[[5,4,1][0,2,6][7,8,3]] - f(n) = 23 + 5 = 28
[[5,4,1][7,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][8,1,6][3,7,0]]
Generated Nodes:
[[5,2,4][8,1,0][3,7,6]] - Already visited Node!
[[5,2,4][8,1,6][3,0,7]] - f(n) = 23 + 6 = 29
Node Chosen for Level 25 - [[1,2,4][3,7,6][5,8,0]]
Generated Nodes:
[[1,2,4][3,7,0][5,8,6]] - Already visited Node!
[[1,2,4][3,7,6][5,0,8]] - f(n) = 25 + 5 = 30
Node Chosen for Level 26 - [[1,4,3][0,5,2][7,8,6]]
Generated Nodes:
[[0,4,3][1,5,2][7,8,6]] - f(n) = 26 + 4 = 30
[[1,4,3][5,0,2][7,8,6]] - Already visited Node!
[[1,4,3][7,5,2][0,8,6]] - f(n) = 26 + 4 = 30
Node Chosen for Level 25 - [[1,5,2][4,7,6][0,8,3]]
Generated Nodes:
[[1,5,2][0,7,6][4,8,3]] - f(n) = 25 + 5 = 30
[[1,5,2][4,7,6][8,0,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,2,7][4,3,5][0,8,6]]
Generated Nodes:
```

```
[[1,2,7][0,3,5][4,8,6]] - f(n) = 25 + 5 = 30
[[1,2,7][4,3,5][8,0,6]] - Already visited Node!
Node Chosen for Level 25 - [[7,5,3][4,2,6][1,8,0]]
Generated Nodes:
[[7,5,3][4,2,0][1,8,6]] - Already visited Node!
[[7,5,3][4,2,6][1,0,8]] - f(n) = 25 + 5 = 30
Node Chosen for Level 26 - [[1,2,4][8,5,6][7,0,3]]
Generated Nodes:
[[1,2,4][8,0,6][7,5,3]] - f(n) = 26 + 4 = 30
[[1,2,4][8,5,6][7,3,0]] - Already visited Node!
[[1,2,4][8,5,6][0,7,3]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,0][4,3,6][5,8,1]]
Generated Nodes:
[[7,0,2][4,3,6][5,8,1]] - Already visited Node!
[[7,2,6][4,3,0][5,8,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,2,0][4,7,6][3,8,1]]
Generated Nodes:
[[5,0,2][4,7,6][3,8,1]] - Already visited Node!
[[5,2,6][4,7,0][3,8,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,2,0][4,3,6][7,1,8]]
Generated Nodes:
[[5,0,2][4,3,6][7,1,8]] - Already visited Node!
[[5,2,6][4,3,0][7,1,8]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,3,2][4,1,6][7,8,0]]
Generated Nodes:
[[5,3,2][4,1,0][7,8,6]] - f(n) = 25 + 5 = 30
[[5,3,2][4,1,6][7,0,8]] - Already visited Node!
Node Chosen for Level 24 - [[1,0,2][5,6,3][7,8,4]]
Generated Nodes:
[[1,2,0][5,6,3][7,8,4]] - f(n) = 24 + 4 = 28
[[0,1,2][5,6,3][7,8,4]] - Already visited Node!
```

```
[[1,6,2][5,0,3][7,8,4]] - f(n) = 24 + 5 = 29
Node Chosen for Level 25 - [[1,5,8][4,2,6][7,3,0]]
Generated Nodes:
[[1,5,8][4,2,0][7,3,6]] - Already visited Node!
[[1,5,8][4,2,6][7,0,3]] - f(n) = 25 + 4 = 29
Node Chosen for Level 27 - [[3,2,0][4,5,6][7,8,1]]
Generated Nodes:
[[3,0,2][4,5,6][7,8,1]] - Already visited Node!
[[3,2,6][4,5,0][7,8,1]] - f(n) = 27 + 3 = 30
Node Chosen for Level 25 - [[8,2,5][4,0,6][7,3,1]]
Generated Nodes:
[[8,0,5][4,2,6][7,3,1]] - Already visited Node!
[[8,2,5][4,6,0][7,3,1]] - f(n) = 25 + 5 = 30
[[8,2,5][0,4,6][7,3,1]] - f(n) = 25 + 5 = 30
[[8,2,5][4,3,6][7,0,1]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[1,7,4][2,5,6][0,8,3]]
Generated Nodes:
[[1,7,4][0,5,6][2,8,3]] - f(n) = 25 + 4 = 29
[[1,7,4][2,5,6][8,0,3]] - Already visited Node!
Node Chosen for Level 27 - [[1,2,7][4,5,6][0,8,3]]
Generated Nodes:
[[1,2,7][0,5,6][4,8,3]] - f(n) = 27 + 3 = 30
[[1,2,7][4,5,6][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][3,5,1][4,6,8]]
Generated Nodes:
[[7,0,2][3,5,1][4,6,8]] - Already visited Node!
[[7,2,1][3,5,0][4,6,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[2,8,0][7,5,6][3,4,1]]
Generated Nodes:
[[2,0,8][7,5,6][3,4,1]] - f(n) = 23 + 6 = 29
[[2,8,6][7,5,0][3,4,1]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[2,1,4][7,5,6][8,3,0]]
Generated Nodes:
[[2,1,4][7,5,0][8,3,6]] - Already visited Node!
[[2,1,4][7,5,6][8,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[4,8,7][2,5,6][3,1,0]]
Generated Nodes:
[[4,8,7][2,5,0][3,1,6]] - Already visited Node!
[[4,8,7][2,5,6][3,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,0][3,5,4][6,1,8]]
Generated Nodes:
[[7,0,2][3,5,4][6,1,8]] - Already visited Node!
[[7,2,4][3,5,0][6,1,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 25 - [[4,2,0][8,5,6][7,3,1]]
Generated Nodes:
[[4,0,2][8,5,6][7,3,1]] - Already visited Node!
[[4,2,6][8,5,0][7,3,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[1,0,2][7,5,4][3,8,6]]
Generated Nodes:
[[1,2,0][7,5,4][3,8,6]] - f(n) = 24 + 4 = 28
[[0,1,2][7,5,4][3,8,6]] - f(n) = 24 + 6 = 30
[[1,5,2][7,0,4][3,8,6]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,0][4,5,1][3,8,6]]
Generated Nodes:
[[7,0,2][4,5,1][3,8,6]] - Already visited Node!
[[7,2,1][4,5,0][3,8,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 24 - [[1,2,3][5,7,0][8,6,4]]
Generated Nodes:
[[1,2,0][5,7,3][8,6,4]] - Already visited Node!
[[1,2,3][5,0,7][8,6,4]] - f(n) = 24 + 5 = 29
[[1,2,3][5,7,4][8,6,0]] - f(n) = 24 + 5 = 29
```

```
Node Chosen for Level 24 - [[5,2,4][0,6,3][7,8,1]]
Generated Nodes:
[[0,2,4][5,6,3][7,8,1]] - f(n) = 24 + 5 = 29
[[5,2,4][6,0,3][7,8,1]] - f(n) = 24 + 5 = 29
[[5,2,4][7,6,3][0,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,0][2,5,6][3,4,1]]
Generated Nodes:
[[8,0,7][2,5,6][3,4,1]] - f(n) = 23 + 6 = 29
[[8,7,6][2,5,0][3,4,1]] - Already visited Node!
Node Chosen for Level 23 - [[1,8,5][4,7,2][0,3,6]]
Generated Nodes:
[[1,8,5][0,7,2][4,3,6]] - Already visited Node!
[[1,8,5][4,7,2][3,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 24 - [[1,2,3][5,7,0][8,6,4]]
Generated Nodes:
[[1,2,0][5,7,3][8,6,4]] - Already visited Node!
[[1,2,3][5,0,7][8,6,4]] - f(n) = 24 + 5 = 29
[[1,2,3][5,7,4][8,6,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[8,7,4][3,5,6][1,2,0]]
Generated Nodes:
[[8,7,4][3,5,0][1,2,6]] - Already visited Node!
[[8,7,4][3,5,6][1,0,2]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,5,2][4,1,8][7,3,6]]
Generated Nodes:
[[5,0,2][4,1,8][7,3,6]] - f(n) = 23 + 6 = 29
[[4,5,2][0,1,8][7,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,2,0][7,5,1][8,3,6]]
Generated Nodes:
[[4,0,2][7,5,1][8,3,6]] - Already visited Node!
[[4,2,1][7,5,0][8,3,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[3,2,0][8,5,4][1,7,6]]
```

```
Generated Nodes:
[[3,0,2][8,5,4][1,7,6]] - Already visited Node!
[[3,2,4][8,5,0][1,7,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,0][1,5,3][6,4,8]]
Generated Nodes:
[[7,0,2][1,5,3][6,4,8]] - Already visited Node!
[[7,2,3][1,5,0][6,4,8]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[1,2,5][7,0,4][8,3,6]]
Generated Nodes:
[[1,0,5][7,2,4][8,3,6]] - Already visited Node!
[[1,2,5][7,4,0][8,3,6]] - f(n) = 23 + 6 = 29
[[1,2,5][0,7,4][8,3,6]] - f(n) = 23 + 6 = 29
[[1,2,5][7,3,4][8,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,0][6,5,4][8,1,3]]
Generated Nodes:
[[7,0,2][6,5,4][8,1,3]] - Already visited Node!
[[7,2,4][6,5,0][8,1,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,0][6,5,3][8,4,1]]
Generated Nodes:
[[7,0,2][6,5,3][8,4,1]] - Already visited Node!
[[7,2,3][6,5,0][8,4,1]] - f(n) = 23 + 5 = 28
Node Chosen for Level 23 - [[1,2,0][5,8,4][3,7,6]]
Generated Nodes:
[[1,0,2][5,8,4][3,7,6]] - Already visited Node!
[[1,2,4][5,8,0][3,7,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,2,0][8,5,3][6,1,4]]
Generated Nodes:
[[7,0,2][8,5,3][6,1,4]] - Already visited Node!
[[7,2,3][8,5,0][6,1,4]] - f(n) = 23 + 5 = 28
Node Chosen for Level 24 - [[5,2,4][0,6,3][7,8,1]]
```

```
Generated Nodes:
```

```
[[0,2,4][5,6,3][7,8,1]] - f(n) = 24 + 5 = 29

[[5,2,4][6,0,3][7,8,1]] - f(n) = 24 + 5 = 29

[[5,2,4][7,6,3][0,8,1]] - Already visited Node!
```

Node Chosen for Level 24 - [[5,2,3][1,8,0][7,6,4]]

Generated Nodes:

```
[[5,2,0][1,8,3][7,6,4]] - Already visited Node! [[5,2,3][1,0,8][7,6,4]] - f(n) = 24 + 5 = 29 [[5,2,3][1,8,4][7,6,0]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 24 - [[1,0,2][7,5,4][3,8,6]]

Generated Nodes:

```
[[1,2,0][7,5,4][3,8,6]] - f(n) = 24 + 4 = 28

[[0,1,2][7,5,4][3,8,6]] - f(n) = 24 + 6 = 30

[[1,5,2][7,0,4][3,8,6]] - Already visited Node!
```

Node Chosen for Level 24 - [[5,2,1][0,6,4][7,8,3]]

Generated Nodes:

```
[[0,2,1][5,6,4][7,8,3]] - f(n) = 24 + 5 = 29

[[5,2,1][6,0,4][7,8,3]] - f(n) = 24 + 5 = 29

[[5,2,1][7,6,4][0,8,3]] - Already visited Node!
```

Node Chosen for Level 24 - [[5,2,3][7,6,0][1,8,4]]

Generated Nodes:

[[5,2,0][7,6,3][1,8,4]] - Already visited Node! [[5,2,3][7,0,6][1,8,4]] - f(n) = 24 + 4 = 28

[[5,2,3][7,6,4][1,8,0]] - f(n) = 24 + 5 = 29

Node Chosen for Level 24 - [[1,0,2][7,5,6][8,3,4]]

Generated Nodes:

```
[[1,2,0][7,5,6][8,3,4]] - f(n) = 24 + 4 = 28

[[0,1,2][7,5,6][8,3,4]] - f(n) = 24 + 6 = 30

[[1,5,2][7,0,6][8,3,4]] - Already visited Node!
```

Node Chosen for Level 24 - [[1,6,5][0,3,2][7,8,4]]

$$[[0,6,5][1,3,2][7,8,4]] - f(n) = 24 + 6 = 30$$

 $[[1,6,5][3,0,2][7,8,4]] - f(n) = 24 + 5 = 29$

```
[[1,6,5][7,3,2][0,8,4]] - Already visited Node!
Node Chosen for Level 25 - [[1,7,4][2,5,6][0,8,3]]
Generated Nodes:
[[1,7,4][0,5,6][2,8,3]] - f(n) = 25 + 4 = 29
[[1,7,4][2,5,6][8,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,4,1][0,2,6][7,8,3]]
Generated Nodes:
[[0,4,1][5,2,6][7,8,3]] - f(n) = 24 + 5 = 29
[[5,4,1][2,0,6][7,8,3]] - f(n) = 24 + 5 = 29
[[5,4,1][7,2,6][0,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,7,2][4,5,6][0,3,8]]
Generated Nodes:
[[1,7,2][0,5,6][4,3,8]] - Already visited Node!
[[1,7,2][4,5,6][3,0,8]] - f(n) = 25 + 4 = 29
Node Chosen for Level 24 - [[4,1,5][0,2,6][7,8,3]]
Generated Nodes:
[[0,1,5][4,2,6][7,8,3]] - f(n) = 24 + 4 = 28
[[4,1,5][2,0,6][7,8,3]] - f(n) = 24 + 5 = 29
[[4,1,5][7,2,6][0,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,4,1][0,2,6][7,8,3]]
Generated Nodes:
[[0,4,1][5,2,6][7,8,3]] - f(n) = 24 + 5 = 29
[[5,4,1][2,0,6][7,8,3]] - f(n) = 24 + 5 = 29
[[5,4,1][7,2,6][0,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,2,0][5,6,3][7,8,4]]
Generated Nodes:
[[1,0,2][5,6,3][7,8,4]] - Already visited Node!
[[1,2,3][5,6,0][7,8,4]] - f(n) = 25 + 3 = 28
Node Chosen for Level 25 - [[1,2,0][7,5,4][3,8,6]]
Generated Nodes:
[[1,0,2][7,5,4][3,8,6]] - Already visited Node!
```

```
[[1,2,4][7,5,0][3,8,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 24 - [[7,2,3][1,5,0][6,4,8]]
Generated Nodes:
[[7,2,0][1,5,3][6,4,8]] - Already visited Node!
[[7,2,3][1,0,5][6,4,8]] - f(n) = 24 + 6 = 30
[[7,2,3][1,5,8][6,4,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,2,3][6,5,0][8,4,1]]
Generated Nodes:
[[7,2,0][6,5,3][8,4,1]] - Already visited Node!
[[7,2,3][6,0,5][8,4,1]] - f(n) = 24 + 6 = 30
[[7,2,3][6,5,1][8,4,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,2,3][8,5,0][6,1,4]]
Generated Nodes:
[[7,2,0][8,5,3][6,1,4]] - Already visited Node!
[[7,2,3][8,0,5][6,1,4]] - f(n) = 24 + 6 = 30
[[7,2,3][8,5,4][6,1,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 25 - [[1,2,0][7,5,4][3,8,6]]
Generated Nodes:
[[1,0,2][7,5,4][3,8,6]] - Already visited Node!
[[1,2,4][7,5,0][3,8,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[5,2,3][7,0,6][1,8,4]]
Generated Nodes:
[[5,0,3][7,2,6][1,8,4]] - f(n) = 25 + 5 = 30
[[5,2,3][7,6,0][1,8,4]] - Already visited Node!
[[5,2,3][0,7,6][1,8,4]] - f(n) = 25 + 4 = 29
[[5,2,3][7,8,6][1,0,4]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[1,2,0][7,5,6][8,3,4]]
Generated Nodes:
[[1,0,2][7,5,6][8,3,4]] - Already visited Node!
[[1,2,6][7,5,0][8,3,4]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[0,1,5][4,2,6][7,8,3]]
Generated Nodes:
```

```
[[1,0,5][4,2,6][7,8,3]] - f(n) = 25 + 3 = 28
[[4,1,5][0,2,6][7,8,3]] - Already visited Node!
Node Chosen for Level 26 - [[1,2,3][5,6,0][7,8,4]]
Generated Nodes:
[[1,2,0][5,6,3][7,8,4]] - Already visited Node!
[[1,2,3][5,0,6][7,8,4]] - f(n) = 26 + 2 = 28
[[1,2,3][5,6,4][7,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 26 - [[1,0,5][4,2,6][7,8,3]]
Generated Nodes:
[[1,5,0][4,2,6][7,8,3]] - f(n) = 26 + 3 = 29
[[0,1,5][4,2,6][7,8,3]] - Already visited Node!
[[1,2,5][4,0,6][7,8,3]] - f(n) = 26 + 2 = 28
Node Chosen for Level 27 - [[1,2,3][5,0,6][7,8,4]]
Generated Nodes:
[[1,0,3][5,2,6][7,8,4]] - f(n) = 27 + 3 = 30
[[1,2,3][5,6,0][7,8,4]] - Already visited Node! [[1,2,3][0,5,6][7,8,4]] - f(n) = 27 + 1 = 28
[[1,2,3][5,8,6][7,0,4]] - f(n) = 27 + 3 = 30
Node Chosen for Level 27 - [[1,2,5][4,0,6][7,8,3]]
Generated Nodes:
[[1,0,5][4,2,6][7,8,3]] - Already visited Node!
[[1,2,5][4,6,0][7,8,3]] - f(n) = 27 + 3 = 30
[[1,2,5][0,4,6][7,8,3]] - f(n) = 27 + 3 = 30
[[1,2,5][4,8,6][7,0,3]] - f(n) = 27 + 3 = 30
Node Chosen for Level 28 - [[1,2,3][0,5,6][7,8,4]]
Generated Nodes:
[[0,2,3][1,5,6][7,8,4]] - f(n) = 28 + 2 = 30
[[1,2,3][5,0,6][7,8,4]] - Already visited Node!
[[1,2,3][7,5,6][0,8,4]] - f(n) = 28 + 2 = 30
Node Chosen for Level 22 - [[7,0,6][3,2,5][1,4,8]]
Generated Nodes:
[[7,6,0][3,2,5][1,4,8]] - f(n) = 22 + 8 = 30
[[0,7,6][3,2,5][1,4,8]] - f(n) = 22 + 8 = 30
```

```
[[7,2,6][3,0,5][1,4,8]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,6][1,2,5][8,4,3]]
Generated Nodes:
[[7,6,0][1,2,5][8,4,3]] - f(n) = 22 + 8 = 30
[[0,7,6][1,2,5][8,4,3]] - f(n) = 22 + 8 = 30
[[7,2,6][1,0,5][8,4,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,6][4,2,5][1,8,3]]
Generated Nodes:
[[7,6,0][4,2,5][1,8,3]] - f(n) = 24 + 6 = 30
[[0,7,6][4,2,5][1,8,3]] - f(n) = 24 + 6 = 30
[[7,2,6][4,0,5][1,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,6][0,4,5][1,8,3]]
Generated Nodes:
[[0,2,6][7,4,5][1,8,3]] - f(n) = 24 + 6 = 30
[[7,2,6][4,0,5][1,8,3]] - Already visited Node!
[[7,2,6][1,4,5][0,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,6][4,8,5][1,0,3]]
Generated Nodes:
[[7,2,6][4,0,5][1,8,3]] - Already visited Node!
[[7,2,6][4,8,5][1,3,0]] - f(n) = 24 + 6 = 30
[[7,2,6][4,8,5][0,1,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[7,2,6][3,0,1][4,5,8]]
Generated Nodes:
[[7,0,6][3,2,1][4,5,8]] - f(n) = 23 + 8 = 31
[[7,2,6][3,1,0][4,5,8]] - f(n) = 23 + 7 = 30
[[7,2,6][0,3,1][4,5,8]] - f(n) = 23 + 7 = 30
[[7,2,6][3,5,1][4,0,8]] - Already visited Node!
Node Chosen for Level 22 - [[4,7,2][8,6,0][3,5,1]]
Generated Nodes:
[[4,7,0][8,6,2][3,5,1]] - f(n) = 22 + 8 = 30
[[4,7,2][8,0,6][3,5,1]] - Already visited Node!
[[4,7,2][8,6,1][3,5,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[2,5,4][7,0,6][3,1,8]]
```

```
Generated Nodes:
```

```
[[2,0,4][7,5,6][3,1,8]] - Already visited Node! [[2,5,4][7,6,0][3,1,8]] - f(n) = 23 + 8 = 31 [[2,5,4][0,7,6][3,1,8]] - f(n) = 23 + 7 = 30
```

[[2,5,4][7,1,6][3,0,8]] - f(n) = 23 + 7 = 30

Node Chosen for Level 22 - [[7,0,6][5,2,1][8,3,4]]

Generated Nodes:

[[7,6,0][5,2,1][8,3,4]] - f(n) = 22 + 8 = 30

[[0,7,6][5,2,1][8,3,4]] - f(n) = 22 + 8 = 30

[[7,2,6][5,0,1][8,3,4]] - Already visited Node!

Node Chosen for Level 22 - [[7,0,1][5,2,4][8,3,6]]

Generated Nodes:

[[7,1,0][5,2,4][8,3,6]] - f(n) = 22 + 8 = 30 [[0,7,1][5,2,4][8,3,6]] - f(n) = 22 + 8 = 30[[7,2,1][5,0,4][8,3,6]] - Already visited Node!

Node Chosen for Level 22 - [[7,0,8][3,2,4][1,5,6]]

Generated Nodes:

[[7,8,0][3,2,4][1,5,6]] - f(n) = 22 + 8 = 30[[0,7,8][3,2,4][1,5,6]] - f(n) = 22 + 8 = 30

[[7,2,8][3,0,4][1,5,6]] - Already visited Node!

Node Chosen for Level 22 - [[3,7,2][5,6,0][1,4,8]]

11000 01100011 101 20101 22 1107,7

Generated Nodes :

[[3,7,0][5,6,2][1,4,8]] - f(n) = 22 + 8 = 30

[[3,7,2][5,0,6][1,4,8]] - Already visited Node!

[[3,7,2][5,6,8][1,4,0]] - Already visited Node!

Node Chosen for Level 22 - [[3,7,2][5,8,1][6,0,4]]

Generated Nodes:

[[2 7 2][5 0 1][6 0 4]]

[[3,7,2][5,0,1][6,8,4]] - Already visited Node!

[[3,7,2][5,8,1][6,4,0]] - f(n) = 22 + 8 = 30[[3,7,2][5,8,1][0,6,4]] - f(n) = 22 + 8 = 30

Node Chosen for Level 23 - [[4,5,2][7,8,6][0,3,1]]

Generated Nodes:

```
[[4,5,2][0,8,6][7,3,1]] - Already visited Node!
[[4,5,2][7,8,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,1][3,0,4][6,5,8]]
Generated Nodes:
[[7,0,1][3,2,4][6,5,8]] - f(n) = 23 + 8 = 31
[[7,2,1][3,4,0][6,5,8]] - f(n) = 23 + 7 = 30
[[7,2,1][0,3,4][6,5,8]] - f(n) = 23 + 7 = 30
[[7,2,1][3,5,4][6,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[1,3,2][5,8,4][0,7,6]]
Generated Nodes:
[[1,3,2][0,8,4][5,7,6]] - f(n) = 23 + 7 = 30
[[1,3,2][5,8,4][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,7,2][5,0,6][3,1,8]]
Generated Nodes:
[[4,0,2][5,7,6][3,1,8]] - f(n) = 23 + 7 = 30
[[4,7,2][5,6,0][3,1,8]] - f(n) = 23 + 8 = 31
[[4,7,2][0,5,6][3,1,8]] - Already visited Node!
[[4,7,2][5,1,6][3,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[7,0,1][6,2,5][8,3,4]]
Generated Nodes:
[[7,1,0][6,2,5][8,3,4]] - Already visited Node!
[[0,7,1][6,2,5][8,3,4]] - f(n) = 22 + 8 = 30
[[7,2,1][6,0,5][8,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[4,1,5][0,7,2][8,3,6]]
Generated Nodes:
[[0,1,5][4,7,2][8,3,6]] - Already visited Node!
[[4,1,5][7,0,2][8,3,6]] - Already visited Node!
[[4,1,5][8,7,2][0,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,2][3,8,6][0,7,1]]
Generated Nodes:
[[5,4,2][0,8,6][3,7,1]] - Already visited Node!
[[5,4,2][3,8,6][7,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,8,1][0,7,6]]
```

```
Generated Nodes:
[[5,2,4][0,8,1][3,7,6]] - Already visited Node!
[[5,2,4][3,8,1][7,0,6]] - Already visited Node!
Node Chosen for Level 24 - [[8,0,7][4,2,6][3,5,1]]
Generated Nodes:
[[8,7,0][4,2,6][3,5,1]] - f(n) = 24 + 6 = 30
[[0,8,7][4,2,6][3,5,1]] - f(n) = 24 + 6 = 30
[[8,2,7][4,0,6][3,5,1]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,7][4,6,0][3,5,1]]
Generated Nodes:
[[8,2,0][4,6,7][3,5,1]] - f(n) = 24 + 6 = 30
[[8,2,7][4,0,6][3,5,1]] - Already visited Node! [[8,2,7][4,6,1][3,5,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[8,2,7][0,4,6][3,5,1]]
Generated Nodes:
[[0,2,7][8,4,6][3,5,1]] - f(n) = 24 + 6 = 30
[[8,2,7][4,0,6][3,5,1]] - Already visited Node!
[[8,2,7][3,4,6][0,5,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[5,1,2][3,4,6][0,7,8]]
Generated Nodes:
[[5,1,2][0,4,6][3,7,8]] - f(n) = 23 + 7 = 30
[[5,1,2][3,4,6][7,0,8]] - Already visited Node!
Node Chosen for Level 24 - [[1,3,2][7,5,4][8,0,6]]
Generated Nodes:
[[1,3,2][7,0,4][8,5,6]] - f(n) = 24 + 7 = 31
[[1,3,2][7,5,4][8,6,0]] - f(n) = 24 + 6 = 30
[[1,3,2][7,5,4][0,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,7,5][1,3,2][4,8,6]]
Generated Nodes:
[[7,0,5][1,3,2][4,8,6]] - f(n) = 23 + 7 = 30
```

[[1,7,5][0,3,2][4,8,6]] - Already visited Node!

```
Node Chosen for Level 25 - [[1,2,4][5,3,6][0,7,8]]
Generated Nodes:
[[1,2,4][0,3,6][5,7,8]] - f(n) = 25 + 5 = 30
[[1,2,4][5,3,6][7,0,8]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,3][4,2,5][8,1,6]]
Generated Nodes:
[[7,3,0][4,2,5][8,1,6]] - f(n) = 24 + 7 = 31
[[0,7,3][4,2,5][8,1,6]] - f(n) = 24 + 6 = 30
[[7,2,3][4,0,5][8,1,6]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,3][0,4,5][8,1,6]]
Generated Nodes:
[[0,2,3][7,4,5][8,1,6]] - f(n) = 24 + 6 = 30
[[7,2,3][4,0,5][8,1,6]] - Already visited Node!
[[7,2,3][8,4,5][0,1,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 22 - [[7,4,6][3,2,0][1,5,8]]
Generated Nodes:
[[7,4,0][3,2,6][1,5,8]] - Already visited Node!
[[7,4,6][3,0,2][1,5,8]] - f(n) = 22 + 8 = 30
[[7,4,6][3,2,8][1,5,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,2][3,6,4][1,5,8]]
Generated Nodes:
[[7,2,0][3,6,4][1,5,8]] - Already visited Node!
[[0,7,2][3,6,4][1,5,8]] - f(n) = 22 + 8 = 30
[[7,6,2][3,0,4][1,5,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,7,6][0,2,5][8,3,1]]
Generated Nodes:
[[0,7,6][4,2,5][8,3,1]] - Already visited Node!
[[4,7,6][2,0,5][8,3,1]] - f(n) = 22 + 8 = 30
[[4,7,6][8,2,5][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,0,6][7,4,5][8,3,1]]
Generated Nodes:
[[2,6,0][7,4,5][8,3,1]] - f(n) = 22 + 8 = 30
```

```
[[0,2,6][7,4,5][8,3,1]] - Already visited Node!
[[2,4,6][7,0,5][8,3,1]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,6][1,2,0][8,5,3]]
Generated Nodes:
[[7,4,0][1,2,6][8,5,3]] - Already visited Node!
[[7,4,6][1,0,2][8,5,3]] - f(n) = 22 + 8 = 30
[[7,4,6][1,2,3][8,5,0]] - f(n) =
                                  22 + 8 = 30
Node Chosen for Level 22 - [[7,0,2][1,6,4][8,5,3]]
Generated Nodes:
[[7,2,0][1,6,4][8,5,3]] - Already visited Node!
[[0,7,2][1,6,4][8,5,3]] - f(n) = 22 + 8 = 30
[[7,6,2][1,0,4][8,5,3]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,6][7,8,2][3,0,1]]
Generated Nodes:
[[5,4,6][7,0,2][3,8,1]] - Already visited Node!
[[5,4,6][7,8,2][3,1,0]] - f(n) = 22 + 8 = 30
[[5,4,6][7,8,2][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,6][7,2,1][3,0,8]]
Generated Nodes:
[[5,4,6][7,0,1][3,2,8]] - f(n) = 22 + 8 = 30
[[5,4,6][7,2,1][3,8,0]] - Already visited Node!
[[5,4,6][7,2,1][0,3,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,2][7,8,4][3,0,1]]
Generated Nodes:
[[5,6,2][7,0,4][3,8,1]] - Already visited Node!
[[5,6,2][7,8,4][3,1,0]] - f(n) = 22 + 8 = 30
[[5,6,2][7,8,4][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,3,4][7,8,5][1,0,6]]
Generated Nodes:
[[2,3,4][7,0,5][1,8,6]] - Already visited Node!
[[2,3,4][7,8,5][1,6,0]] - f(n) = 22 + 8 = 30
[[2,3,4][7,8,5][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,5][2,6,0][4,3,1]]
```

```
Generated Nodes:
[[8,7,0][2,6,5][4,3,1]] - f(n) = 22 + 8 = 30
[[8,7,5][2,0,6][4,3,1]] - Already visited Node!
[[8,7,5][2,6,1][4,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,6][7,2,0][8,1,3]]
Generated Nodes:
[[5,4,0][7,2,6][8,1,3]] - Already visited Node!
[[5,4,6][7,0,2][8,1,3]] - f(n) = 22 + 8 = 30
[[5,4,6][7,2,3][8,1,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,2][7,6,4][8,1,3]]
Generated Nodes:
[[5,2,0][7,6,4][8,1,3]] - Already visited Node!
[[0,5,2][7,6,4][8,1,3]] - f(n) = 22 + 8 = 30
[[5,6,2][7,0,4][8,1,3]] - f(n) = 22 + 8 = 30
Node Chosen for Level 24 - [[2,4,6][7,5,0][1,8,3]]
Generated Nodes:
[[2,4,0][7,5,6][1,8,3]] - Already visited Node!
[[2,4,6][7,0,5][1,8,3]] - f(n) = 24 + 7 = 31
[[2,4,6][7,5,3][1,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[2,4,6][5,1,0][7,8,3]]
Generated Nodes:
[[2,4,0][5,1,6][7,8,3]] - Already visited Node!
[[2,4,6][5,0,1][7,8,3]] - f(n) = 24 + 6 = 30
[[2,4,6][5,1,3][7,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[2,1,4][5,6,0][7,8,3]]
Generated Nodes:
[[2,1,0][5,6,4][7,8,3]] - f(n) = 24 + 6 = 30
[[2,1,4][5,0,6][7,8,3]] - Already visited Node!
[[2,1,4][5,6,3][7,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[2,1,4][5,8,6][7,0,3]]
```

[[2,1,4][5,0,6][7,8,3]] - Already visited Node!

```
[[2,1,4][5,8,6][7,3,0]] - Already visited Node!
[[2,1,4][5,8,6][0,7,3]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,4,6][1,2,0][7,8,3]]
Generated Nodes:
[[5,4,0][1,2,6][7,8,3]] - Already visited Node!
[[5,4,6][1,0,2][7,8,3]] - f(n) = 24 + 6 = 30
[[5,4,6][1,2,3][7,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,0,2][1,6,4][7,8,3]]
Generated Nodes:
[[5,2,0][1,6,4][7,8,3]] - Already visited Node!
[[0,5,2][1,6,4][7,8,3]] - f(n) = 24 + 6 = 30
[[5,6,2][1,0,4][7,8,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,4][1,6,3][7,0,8]]
Generated Nodes:
[[5,2,4][1,0,3][7,6,8]] - Already visited Node!
[[5,2,4][1,6,3][7,8,0]] - Already visited Node!
[[5,2,4][1,6,3][0,7,8]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[4,7,2][1,5,6][8,0,3]]
Generated Nodes:
[[4,7,2][1,0,6][8,5,3]] - f(n) = 24 + 7 = 31
[[4,7,2][1,5,6][8,3,0]] - f(n) = 24 + 6 = 30
[[4,7,2][1,5,6][0,8,3]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,6][5,2,7][3,4,1]]
Generated Nodes:
[[8,6,0][5,2,7][3,4,1]] - f(n) = 22 + 8 = 30
[[0,8,6][5,2,7][3,4,1]] - f(n) = 22 + 8 = 30
[[8,2,6][5,0,7][3,4,1]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,2][5,6,0][1,4,8]]
Generated Nodes:
[[3,7,0][5,6,2][1,4,8]] - f(n) = 22 + 8 = 30
[[3,7,2][5,0,6][1,4,8]] - Already visited Node!
[[3,7,2][5,6,8][1,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][6,8,1][4,0,3]]
```

```
Generated Nodes:
[[7,5,2][6,0,1][4,8,3]] - Already visited Node!
[[7,5,2][6,8,1][4,3,0]] - f(n) = 22 + 8 = 30
[[7,5,2][6,8,1][0,4,3]] - f(n) = 22 + 8 = 30
Node Chosen for Level 24 - [[2,0,6][7,5,1][4,8,3]]
Generated Nodes:
[[2,6,0][7,5,1][4,8,3]] - f(n) = 24 + 6 = 30
[[0,2,6][7,5,1][4,8,3]] - Already visited Node!
[[2,5,6][7,0,1][4,8,3]] - f(n) = 24 + 7 = 31
Node Chosen for Level 22 - [[3,7,5][0,8,2][4,1,6]]
Generated Nodes:
[[0,7,5][3,8,2][4,1,6]] - Already visited Node!
[[3,7,5][8,0,2][4,1,6]] - f(n) = 22 + 8 = 30
[[3,7,5][4,8,2][0,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][3,6,0][1,2,8]]
Generated Nodes:
[[7,4,0][3,6,5][1,2,8]] - f(n) = 22 + 8 = 30
[[7,4,5][3,0,6][1,2,8]] - Already visited Node!
[[7,4,5][3,6,8][1,2,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,3,2][7,6,0][1,4,8]]
Generated Nodes:
[[5,3,0][7,6,2][1,4,8]] - f(n) = 22 + 8 = 30
[[5,3,2][7,0,6][1,4,8]] - Already visited Node!
[[5,3,2][7,6,8][1,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[2,0,7][8,4,5][3,1,6]]
Generated Nodes:
[[2,7,0][8,4,5][3,1,6]] - f(n) = 22 + 8 = 30
[[0,2,7][8,4,5][3,1,6]] - Already visited Node!
[[2,4,7][8,0,5][3,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 24 - [[3,7,2][4,5,0][8,1,6]]
Generated Nodes:
```

[[3,7,0][4,5,2][8,1,6]] - f(n) = 24 + 6 = 30

```
[[3,7,2][4,0,5][8,1,6]] - f(n) = 24 + 7 = 31
[[3,7,2][4,5,6][8,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][3,6,0][1,2,8]]
Generated Nodes:
[[7,4,0][3,6,5][1,2,8]] - f(n) = 22 + 8 = 30
[[7,4,5][3,0,6][1,2,8]] - Already visited Node!
[[7,4,5][3,6,8][1,2,0]] - Already visited Node!
Node Chosen for Level 23 - [[0,1,2][5,7,6][8,4,3]]
Generated Nodes:
[[1,0,2][5,7,6][8,4,3]] - Already visited Node!
[[5,1,2][0,7,6][8,4,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,0,6][4,2,8][7,3,1]]
Generated Nodes:
[[5,6,0][4,2,8][7,3,1]] - f(n) = 24 + 6 = 30
[[0,5,6][4,2,8][7,3,1]] - f(n) = 24 + 6 = 30
[[5,2,6][4,0,8][7,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,6][0,4,8][7,3,1]]
Generated Nodes:
[[0,2,6][5,4,8][7,3,1]] - Already visited Node!
[[5,2,6][4,0,8][7,3,1]] - Already visited Node!
[[5,2,6][7,4,8][0,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,1,2][4,6,3][7,0,8]]
Generated Nodes:
[[5,1,2][4,0,3][7,6,8]] - f(n) = 24 + 6 = 30
[[5,1,2][4,6,3][7,8,0]] - Already visited Node!
[[5,1,2][4,6,3][0,7,8]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,1,2][4,8,0][7,3,6]]
Generated Nodes:
[[5,1,0][4,8,2][7,3,6]] - f(n) = 24 + 6 = 30
[[5,1,2][4,0,8][7,3,6]] - f(n) = 24 + 6 = 30
[[5,1,2][4,8,6][7,3,0]] - Already visited Node!
Node Chosen for Level 22 - [[4,7,2][5,3,0][8,1,6]]
```

```
Generated Nodes:
[[4,7,0][5,3,2][8,1,6]] - f(n) = 22 + 8 = 30
[[4,7,2][5,0,3][8,1,6]] - f(n) = 22 + 8 = 30
[[4,7,2][5,3,6][8,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[2,0,6][7,8,1][3,5,4]]
Generated Nodes:
[[2,6,0][7,8,1][3,5,4]] - f(n) = 22 + 8 = 30
[[0,2,6][7,8,1][3,5,4]] - Already visited Node!
[[2,8,6][7,0,1][3,5,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,2][8,4,1][3,5,6]]
Generated Nodes:
[[7,2,0][8,4,1][3,5,6]] - Already visited Node!
[[0,7,2][8,4,1][3,5,6]] - f(n) = 22 + 8 = 30
[[7,4,2][8,0,1][3,5,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,0,1][7,8,4][3,5,6]]
Generated Nodes:
[[2,1,0][7,8,4][3,5,6]] - f(n) = 22 + 8 = 30
[[0,2,1][7,8,4][3,5,6]] - Already visited Node!
[[2,8,1][7,0,4][3,5,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[2,8,4][5,3,6][0,7,1]]
Generated Nodes:
[[2,8,4][0,3,6][5,7,1]] - f(n) = 23 + 7 = 30
[[2,8,4][5,3,6][7,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,5,4][7,2,6][0,3,1]]
Generated Nodes:
[[8,5,4][0,2,6][7,3,1]] - Already visited Node!
[[8,5,4][7,2,6][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,4][8,6,1][0,7,3]]
Generated Nodes:
[[5,2,4][0,6,1][8,7,3]] - f(n) = 23 + 7 = 30
[[5,2,4][8,6,1][7,0,3]] - Already visited Node!
```

Node Chosen for Level 22 - [[2,0,8][7,3,5][1,6,4]]

```
Generated Nodes:
[[2,8,0][7,3,5][1,6,4]] - f(n) = 22 + 8 = 30
[[0,2,8][7,3,5][1,6,4]] - Already visited Node!
[[2,3,8][7,0,5][1,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[7,2,6][3,0,8][1,5,4]]
Generated Nodes:
[[7,0,6][3,2,8][1,5,4]] - f(n) = 23 + 8 = 31
[[7,2,6][3,8,0][1,5,4]] - f(n) = 23 + 7 = 30
[[7,2,6][0,3,8][1,5,4]] - f(n) = 23 + 7 = 30
[[7,2,6][3,5,8][1,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,8,2][4,6,1][0,7,3]]
Generated Nodes:
[[5,8,2][0,6,1][4,7,3]] - f(n) = 23 + 8 = 31
[[5,8,2][4,6,1][7,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][1,0,3][8,5,4]]
Generated Nodes:
[[7,0,6][1,2,3][8,5,4]] - f(n) = 23 + 8 = 31
[[7,2,6][1,3,0][8,5,4]] - f(n) = 23 + 7 = 30
[[7,2,6][0,1,3][8,5,4]] - f(n) = 23 + 7 = 30
[[7,2,6][1,5,3][8,0,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,4][2,8,5][1,0,6]]
Generated Nodes:
[[3,7,4][2,0,5][1,8,6]] - Already visited Node!
[[3,7,4][2,8,5][1,6,0]] - f(n) = 22 + 8 = 30
[[3,7,4][2,8,5][0,1,6]] - f(n) =
                                  22 + 8 = 30
Node Chosen for Level 22 - [[3,7,4][1,2,5][8,0,6]]
Generated Nodes:
[[3,7,4][1,0,5][8,2,6]] - f(n) = 22 + 8 = 30
[[3,7,4][1,2,5][8,6,0]] - f(n) = 22 + 8 = 30
[[3,7,4][1,2,5][0,8,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,2][3,8,4][1,6,5]]
```

```
[[7,2,0][3,8,4][1,6,5]] - Already visited Node!
[[0,7,2][3,8,4][1,6,5]] - f(n) = 22 + 8 = 30
[[7,8,2][3,0,4][1,6,5]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,4][3,2,8][1,6,5]]
Generated Nodes:
[[7,4,0][3,2,8][1,6,5]] - f(n) = 22 + 8 = 30
[[0,7,4][3,2,8][1,6,5]] - f(n) = 22 + 8 = 30
[[7,2,4][3,0,8][1,6,5]] - Already visited Node!
Node Chosen for Level 22 - [[2,0,4][7,8,5][3,1,6]]
Generated Nodes:
[[2,4,0][7,8,5][3,1,6]] - f(n) = 22 + 8 = 30
[[0,2,4][7,8,5][3,1,6]] - Already visited Node!
[[2,8,4][7,0,5][3,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,7,5][0,3,2][8,1,6]]
Generated Nodes:
[[0,7,5][4,3,2][8,1,6]] - Already visited Node!
[[4,7,5][3,0,2][8,1,6]] - f(n) = 22 + 8 = 30
[[4,7,5][8,3,2][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,3,5][0,4,2][8,1,6]]
Generated Nodes:
[[0,3,5][7,4,2][8,1,6]] - f(n) = 22 + 8 = 30
[[7,3,5][4,0,2][8,1,6]] - Already visited Node!
[[7,3,5][8,4,2][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,0,6][5,7,8][3,4,1]]
Generated Nodes:
[[2,6,0][5,7,8][3,4,1]] - f(n) = 22 + 8 = 30
[[0,2,6][5,7,8][3,4,1]] - Already visited Node!
[[2,7,6][5,0,8][3,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,5][3,8,2][4,0,1]]
Generated Nodes:
[[7,6,5][3,0,2][4,8,1]] - Already visited Node!
[[7,6,5][3,8,2][4,1,0]] - Already visited Node!
[[7,6,5][3,8,2][0,4,1]] - Already visited Node!
```

```
Node Chosen for Level 22 - [[2,0,6][5,7,4][8,3,1]]
Generated Nodes:
[[2,6,0][5,7,4][8,3,1]] - f(n) = 22 + 8 = 30
[[0,2,6][5,7,4][8,3,1]] - Already visited Node!
[[2,7,6][5,0,4][8,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,6][7,2,1][8,4,3]]
Generated Nodes:
[[5,6,0][7,2,1][8,4,3]] - f(n) = 22 + 8 = 30
[[0,5,6][7,2,1][8,4,3]] - f(n) = 22 + 8 = 30
[[5,2,6][7,0,1][8,4,3]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,6][8,2,4][3,1,5]]
Generated Nodes:
[[7,6,0][8,2,4][3,1,5]] - f(n) = 22 + 8 = 30
[[0,7,6][8,2,4][3,1,5]] - f(n) = 22 + 8 = 30
[[7,2,6][8,0,4][3,1,5]] - Already visited Node!
Node Chosen for Level 22 - [[2,0,6][7,4,5][8,3,1]]
Generated Nodes:
[[2,6,0][7,4,5][8,3,1]] - f(n) = 22 + 8 = 30
[[0,2,6][7,4,5][8,3,1]] - Already visited Node!
[[2,4,6][7,0,5][8,3,1]] - Already visited Node!
Node Chosen for Level 22 - [[3,4,7][5,8,2][1,0,6]]
Generated Nodes:
[[3,4,7][5,0,2][1,8,6]] - Already visited Node!
[[3,4,7][5,8,2][1,6,0]] - f(n) = 22 + 8 = 30
[[3,4,7][5,8,2][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,2][8,6,1][3,4,5]]
Generated Nodes:
[[7,2,0][8,6,1][3,4,5]] - Already visited Node!
[[0,7,2][8,6,1][3,4,5]] - f(n) = 22 + 8 = 30
[[7,6,2][8,0,1][3,4,5]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,0,1][7,6,5][8,3,4]]
Generated Nodes:
```

```
[[2,1,0][7,6,5][8,3,4]] - f(n) = 22 + 8 = 30
[[0,2,1][7,6,5][8,3,4]] - Already visited Node!
[[2,6,1][7,0,5][8,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,1][6,2,5][8,3,4]]
Generated Nodes:
[[7,1,0][6,2,5][8,3,4]] - Already visited Node!
[[0,7,1][6,2,5][8,3,4]] - f(n) = 22 + 8 = 30
[[7,2,1][6,0,5][8,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,2][1,3,4][8,6,5]]
Generated Nodes:
[[7,2,0][1,3,4][8,6,5]] - Already visited Node!
[[0,7,2][1,3,4][8,6,5]] - f(n) = 22 + 8 = 30
[[7,3,2][1,0,4][8,6,5]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,4][1,2,3][8,6,5]]
Generated Nodes:
[[7,4,0][1,2,3][8,6,5]] - f(n) = 22 + 8 = 30
[[0,7,4][1,2,3][8,6,5]] - f(n) = 22 + 8 = 30
[[7,2,4][1,0,3][8,6,5]] - Already visited Node!
Node Chosen for Level 22 - [[5,3,2][7,6,0][1,4,8]]
Generated Nodes:
[[5,3,0][7,6,2][1,4,8]] - f(n) = 22 + 8 = 30
[[5,3,2][7,0,6][1,4,8]] - Already visited Node!
[[5,3,2][7,6,8][1,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][1,6,0][4,3,8]]
Generated Nodes:
[[7,5,0][1,6,2][4,3,8]] - f(n) = 22 + 8 = 30
[[7,5,2][1,0,6][4,3,8]] - Already visited Node!
[[7,5,2][1,6,8][4,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,2][7,6,0][3,1,8]]
Generated Nodes:
[[5,4,0][7,6,2][3,1,8]] - f(n) = 22 + 8 = 30
[[5,4,2][7,0,6][3,1,8]] - Already visited Node!
[[5,4,2][7,6,8][3,1,0]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[5,8,2][3,6,0][4,7,1]]
Generated Nodes:
[[5,8,0][3,6,2][4,7,1]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,6][4,7,1]] - Already visited Node!
[[5,8,2][3,6,1][4,7,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,8,2][3,7,0][4,1,6]]
Generated Nodes:
[[5,8,0][3,7,2][4,1,6]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,7][4,1,6]] - f(n) = 22 + 8 = 30
[[5,8,2][3,7,6][4,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,2][8,6,0][3,7,1]]
Generated Nodes:
[[5,4,0][8,6,2][3,7,1]] - f(n) = 22 + 8 = 30
[[5,4,2][8,0,6][3,7,1]] - Already visited Node!
[[5,4,2][8,6,1][3,7,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,2][8,7,0][3,1,6]]
Generated Nodes:
[[5,4,0][8,7,2][3,1,6]] - f(n) = 22 + 8 = 30
[[5,4,2][8,0,7][3,1,6]] - f(n) = 22 + 8 = 30
[[5,4,2][8,7,6][3,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[2,0,4][5,3,8][1,7,6]]
Generated Nodes:
[[2,4,0][5,3,8][1,7,6]] - f(n) = 22 + 8 = 30
[[0,2,4][5,3,8][1,7,6]] - Already visited Node!
[[2,3,4][5,0,8][1,7,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,2][3,7,4][1,6,8]]
Generated Nodes:
[[5,2,0][3,7,4][1,6,8]] - Already visited Node!
[[0,5,2][3,7,4][1,6,8]] - f(n) = 22 + 8 = 30
[[5,7,2][3,0,4][1,6,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,4][3,2,7][1,6,8]]
```

```
[[5,4,0][3,2,7][1,6,8]] - f(n) = 22 + 8 = 30
[[0,5,4][3,2,7][1,6,8]] - f(n) = 22 + 8 = 30
[[5,2,4][3,0,7][1,6,8]] - Already visited Node!
Node Chosen for Level 22 - [[2,0,4][5,7,1][3,6,8]]
Generated Nodes:
[[2,4,0][5,7,1][3,6,8]] - f(n) = 22 + 8 = 30
[[0,2,4][5,7,1][3,6,8]] - Already visited Node!
[[2,7,4][5,0,1][3,6,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,3,5][7,8,2][1,0,6]]
Generated Nodes:
[[4,3,5][7,0,2][1,8,6]] - Already visited Node!
[[4,3,5][7,8,2][1,6,0]] - f(n) = 22 + 8 = 30
[[4,3,5][7,8,2][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,5,2][0,1,7][4,3,6]]
Generated Nodes:
[[0,5,2][8,1,7][4,3,6]] - f(n) = 22 + 8 = 30
[[8,5,2][1,0,7][4,3,6]] - f(n) = 22 + 8 = 30
[[8,5,2][4,1,7][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,8,7][0,1,5][3,6,2]]
Generated Nodes:
[[0,8,7][4,1,5][3,6,2]] - Already visited Node!
[[4,8,7][1,0,5][3,6,2]] - f(n) = 22 + 8 = 30
[[4,8,7][3,1,5][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,1,7][0,4,5][3,6,2]]
Generated Nodes:
[[0,1,7][8,4,5][3,6,2]] - f(n) = 22 + 8 = 30
[[8,1,7][4,0,5][3,6,2]] - Already visited Node!
[[8,1,7][3,4,5][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,8,5][0,7,1][3,6,2]]
Generated Nodes:
[[0,8,5][4,7,1][3,6,2]] - Already visited Node!
[[4,8,5][7,0,1][3,6,2]] - Already visited Node!
[[4,8,5][3,7,1][0,6,2]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[8,7,5][0,6,1][4,3,2]]
Generated Nodes:
[[0,7,5][8,6,1][4,3,2]] - f(n) = 22 + 8 = 30
[[8,7,5][6,0,1][4,3,2]] - f(n) = 22 + 8 = 30
[[8,7,5][4,6,1][0,3,2]] - Already visited Node!
Node Chosen for Level 22 - [[4,5,6][7,8,0][3,2,1]]
Generated Nodes:
[[4,5,0][7,8,6][3,2,1]] - Already visited Node!
[[4,5,6][7,0,8][3,2,1]] - f(n) = 22 + 8 = 30
[[4,5,6][7,8,1][3,2,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,8,5][7,6,0][3,2,1]]
Generated Nodes:
[[4,8,0][7,6,5][3,2,1]] - f(n) = 22 + 8 = 30
[[4,8,5][7,0,6][3,2,1]] - Already visited Node!
[[4,8,5][7,6,1][3,2,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,4,5][3,8,0][2,1,6]]
Generated Nodes:
[[7,4,0][3,8,5][2,1,6]] - f(n) = 22 + 8 = 30
[[7,4,5][3,0,8][2,1,6]] - f(n) = 22 + 8 = 30
[[7,4,5][3,8,6][2,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[4,5,6][7,2,0][8,3,1]]
Generated Nodes:
[[4,5,0][7,2,6][8,3,1]] - Already visited Node!
[[4,5,6][7,0,2][8,3,1]] - f(n) = 22 + 8 = 30
[[4,5,6][7,2,1][8,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,6][2,4,0][8,3,1]]
Generated Nodes:
[[7,5,0][2,4,6][8,3,1]] - Already visited Node!
[[7,5,6][2,0,4][8,3,1]] - f(n) = 22 + 8 = 30
[[7,5,6][2,4,1][8,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,4,5][2,3,0][8,1,6]]
```

```
[[7,4,0][2,3,5][8,1,6]] - f(n) = 22 + 8 = 30
[[7,4,5][2,0,3][8,1,6]] - f(n) = 22 + 8 = 30
[[7,4,5][2,3,6][8,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][3,6,0][4,7,1]]
Generated Nodes:
[[5,8,0][3,6,2][4,7,1]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,6][4,7,1]] - Already visited Node!
[[5,8,2][3,6,1][4,7,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,8,2][3,7,0][4,1,6]]
Generated Nodes:
[[5,8,0][3,7,2][4,1,6]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,7][4,1,6]] - f(n) = 22 + 8 = 30
[[5,8,2][3,7,6][4,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,4][8,2,1][3,7,6]]
Generated Nodes:
[[5,4,0][8,2,1][3,7,6]] - f(n) = 22 + 8 = 30
[[0,5,4][8,2,1][3,7,6]] - f(n) = 22 + 8 = 30
[[5,2,4][8,0,1][3,7,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,2][7,3,4][8,6,1]]
Generated Nodes:
[[5,2,0][7,3,4][8,6,1]] - Already visited Node!
[[0,5,2][7,3,4][8,6,1]] - f(n) = 22 + 8 = 30
[[5,3,2][7,0,4][8,6,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,4][7,2,3][8,6,1]]
Generated Nodes:
[[5,4,0][7,2,3][8,6,1]] - f(n) = 22 + 8 = 30
[[0,5,4][7,2,3][8,6,1]] - f(n) = 22 + 8 = 30
[[5,2,4][7,0,3][8,6,1]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][8,6,0][4,1,3]]
Generated Nodes:
[[7,5,0][8,6,2][4,1,3]] - f(n) = 22 + 8 = 30
[[7,5,2][8,0,6][4,1,3]] - Already visited Node!
[[7,5,2][8,6,3][4,1,0]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[7,5,2][8,1,0][4,3,6]]
Generated Nodes:
[[7,5,0][8,1,2][4,3,6]] - Already visited Node!
[[7,5,2][8,0,1][4,3,6]] - f(n) = 22 + 8 = 30
[[7,5,2][8,1,6][4,3,0]] - Already visited Node!
Node Chosen for Level 23 - [[0,1,7][8,5,2][3,6,4]]
Generated Nodes:
[[1,0,7][8,5,2][3,6,4]] - Already visited Node!
[[8,1,7][0,5,2][3,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,5,7][8,0,2][3,6,4]]
Generated Nodes:
[[1,0,7][8,5,2][3,6,4]] - Already visited Node!
[[1,5,7][8,2,0][3,6,4]] - f(n) = 23 + 7 = 30
[[1,5,7][0,8,2][3,6,4]] - f(n) = 23 + 7 = 30
[[1,5,7][8,6,2][3,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,8][5,0,4][3,1,6]]
Generated Nodes:
[[7,0,8][5,2,4][3,1,6]] - f(n) = 23 + 8 = 31
[[7,2,8][5,4,0][3,1,6]] - f(n) = 23 + 7 = 30
[[7,2,8][0,5,4][3,1,6]] - Already visited Node!
[[7,2,8][5,1,4][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,7,2][1,0,6][4,5,8]]
Generated Nodes:
[[3,0,2][1,7,6][4,5,8]] - f(n) = 23 + 7 = 30
[[3,7,2][1,6,0][4,5,8]] - f(n) =
                                  23 + 8 = 31
[[3,7,2][0,1,6][4,5,8]] - f(n) = 23 + 7 = 30
[[3,7,2][1,5,6][4,0,8]] - Already visited Node!
Node Chosen for Level 22 - [[4,3,5][7,8,2][1,0,6]]
Generated Nodes:
[[4,3,5][7,0,2][1,8,6]] - Already visited Node!
[[4,3,5][7,8,2][1,6,0]] - f(n) = 22 + 8 = 30
[[4,3,5][7,8,2][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,0,1][5,7,8][3,6,4]]
```

```
[[2,1,0][5,7,8][3,6,4]] - f(n) = 22 + 8 = 30
[[0,2,1][5,7,8][3,6,4]] - Already visited Node!
[[2,7,1][5,0,8][3,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,3,2][7,8,1][6,0,4]]
Generated Nodes:
[[5,3,2][7,0,1][6,8,4]] - Already visited Node!
[[5,3,2][7,8,1][6,4,0]] - f(n) = 22 + 8 = 30
[[5,3,2][7,8,1][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[8,4,2][5,3,6][0,7,1]]
Generated Nodes:
[[8,4,2][0,3,6][5,7,1]] - f(n) = 23 + 7 = 30
[[8,4,2][5,3,6][7,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[3,5,2][7,1,4][0,8,6]]
Generated Nodes:
[[3,5,2][0,1,4][7,8,6]] - Already visited Node!
[[3,5,2][7,1,4][8,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,1,2][3,7,4][5,8,6]]
Generated Nodes:
[[1,0,2][3,7,4][5,8,6]] - Already visited Node!
[[3,1,2][0,7,4][5,8,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,4][5,3,1][0,7,6]]
Generated Nodes:
[[8,2,4][0,3,1][5,7,6]] - f(n) = 23 + 7 = 30
[[8,2,4][5,3,1][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,8,2][7,1,6][0,4,3]]
Generated Nodes:
[[5,8,2][0,1,6][7,4,3]] - Already visited Node!
[[5,8,2][7,1,6][4,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[1,7,2][8,5,0][4,3,6]]
Generated Nodes:
```

```
[[1,7,0][8,5,2][4,3,6]] - f(n) = 24 + 6 = 30
[[1,7,2][8,0,5][4,3,6]] - f(n) = 24 + 7 = 31
[[1,7,2][8,5,6][4,3,0]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,1][6,0,4][8,5,3]]
Generated Nodes:
[[7,0,1][6,2,4][8,5,3]] - f(n) = 23 + 8 = 31
[[7,2,1][6,4,0][8,5,3]] - f(n) = 23 + 7 = 30
[[7,2,1][0,6,4][8,5,3]] - f(n) = 23 + 7 = 30
[[7,2,1][6,5,4][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[0,1,7][4,2,5][8,3,6]]
Generated Nodes:
[[1,0,7][4,2,5][8,3,6]] - Already visited Node!
[[4,1,7][0,2,5][8,3,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 24 - [[4,3,2][5,6,0][7,8,1]]
Generated Nodes:
[[4,3,0][5,6,2][7,8,1]] - f(n) = 24 + 6 = 30
[[4,3,2][5,0,6][7,8,1]] - Already visited Node!
[[4,3,2][5,6,1][7,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[4,3,2][5,8,6][7,0,1]]
Generated Nodes:
[[4,3,2][5,0,6][7,8,1]] - Already visited Node!
[[4,3,2][5,8,6][7,1,0]] - f(n) = 24 + 6 = 30
[[4,3,2][5,8,6][0,7,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 22 - [[8,0,1][5,2,7][3,6,4]]
Generated Nodes:
[[8,1,0][5,2,7][3,6,4]] - f(n) = 22 + 8 = 30
[[0,8,1][5,2,7][3,6,4]] - f(n) = 22 + 8 = 30
[[8,2,1][5,0,7][3,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,8][7,6,0][3,2,1]]
Generated Nodes:
[[5,4,0][7,6,8][3,2,1]] - f(n) = 22 + 8 = 30
[[5,4,8][7,0,6][3,2,1]] - Already visited Node!
[[5,4,8][7,6,1][3,2,0]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[8,7,5][3,6,0][1,2,4]]
Generated Nodes:
[[8,7,0][3,6,5][1,2,4]] - f(n) = 22 + 8 = 30
[[8,7,5][3,0,6][1,2,4]] - Already visited Node!
[[8,7,5][3,6,4][1,2,0]] - Already visited Node!
Node Chosen for Level 22 - [[4,8,5][7,6,0][3,2,1]]
Generated Nodes:
[[4,8,0][7,6,5][3,2,1]] - f(n) = 22 + 8 = 30
[[4,8,5][7,0,6][3,2,1]] - Already visited Node!
[[4,8,5][7,6,1][3,2,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,4,5][1,6,0][8,2,3]]
Generated Nodes:
[[7,4,0][1,6,5][8,2,3]] - f(n) = 22 + 8 = 30
[[7,4,5][1,0,6][8,2,3]] - Already visited Node!
[[7,4,5][1,6,3][8,2,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,8][0,1,2][4,3,6]]
Generated Nodes:
[[0,5,8][7,1,2][4,3,6]] - f(n) = 22 + 8 = 30
[[7,5,8][1,0,2][4,3,6]] - f(n) = 22 + 8 = 30
[[7,5,8][4,1,2][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,8][7,6,0][3,2,1]]
Generated Nodes:
[[5,4,0][7,6,8][3,2,1]] - f(n) = 22 + 8 = 30
[[5,4,8][7,0,6][3,2,1]] - Already visited Node!
[[5,4,8][7,6,1][3,2,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,8,2][3,6,0][1,4,7]]
Generated Nodes:
[[5,8,0][3,6,2][1,4,7]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,6][1,4,7]] - Already visited Node!
[[5,8,2][3,6,7][1,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,8][7,2,3][1,6,4]]
Generated Nodes:
```

```
[[5,8,0][7,2,3][1,6,4]] - f(n) = 22 + 8 = 30
[[0,5,8][7,2,3][1,6,4]] - f(n) = 22 + 8 = 30
[[5,2,8][7,0,3][1,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,1,5][3,2,4][6,0,8]]
Generated Nodes:
[[7,1,5][3,0,4][6,2,8]] - f(n) = 22 + 8 = 30
[[7,1,5][3,2,4][6,8,0]] - Already visited Node!
[[7,1,5][3,2,4][0,6,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,6][8,1,0][3,4,2]]
Generated Nodes:
[[7,5,0][8,1,6][3,4,2]] - Already visited Node!
[[7,5,6][8,0,1][3,4,2]] - f(n) = 22 + 8 = 30
[[7,5,6][8,1,2][3,4,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,4,5][1,6,0][8,2,3]]
Generated Nodes:
[[7,4,0][1,6,5][8,2,3]] - f(n) = 22 + 8 = 30
[[7,4,5][1,0,6][8,2,3]] - Already visited Node!
[[7,4,5][1,6,3][8,2,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][6,8,3][1,0,4]]
Generated Nodes:
[[7,5,2][6,0,3][1,8,4]] - Already visited Node!
[[7,5,2][6,8,3][1,4,0]] - f(n) = 22 + 8 = 30
[[7,5,2][6,8,3][0,1,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[1,5,2][8,3,4][0,7,6]]
Generated Nodes:
[[1,5,2][0,3,4][8,7,6]] - f(n) = 23 + 7 = 30
[[1,5,2][8,3,4][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,4][3,0,7][1,5,6]]
Generated Nodes:
[[8,0,4][3,2,7][1,5,6]] - f(n) = 23 + 8 = 31
[[8,2,4][3,7,0][1,5,6]] - f(n) = 23 + 7 = 30
[[8,2,4][0,3,7][1,5,6]] - f(n) = 23 + 7 = 30
[[8,2,4][3,5,7][1,0,6]] - Already visited Node!
```

```
Node Chosen for Level 24 - [[1,0,4][5,2,6][8,7,3]]
Generated Nodes:
[[1,4,0][5,2,6][8,7,3]] - f(n) = 24 + 6 = 30
[[0,1,4][5,2,6][8,7,3]] - f(n) =
                                  24 + 7 = 31
[[1,2,4][5,0,6][8,7,3]] - Already visited Node!
Node Chosen for Level 24 - [[1,2,4][5,6,0][8,7,3]]
Generated Nodes:
[[1,2,0][5,6,4][8,7,3]] - f(n) = 24 + 6 = 30
[[1,2,4][5,0,6][8,7,3]] - Already visited Node!
[[1,2,4][5,6,3][8,7,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[1,7,2][8,0,3][6,5,4]]
Generated Nodes:
[[1,0,2][8,7,3][6,5,4]] - f(n) =
                                  23 + 7 = 30
[[1,7,2][8,3,0][6,5,4]] - f(n) =
                                  23 + 7 = 30
[[1,7,2][0,8,3][6,5,4]] - f(n) = 23 + 7 = 30
[[1,7,2][8,5,3][6,0,4]] - Already visited Node!
Node Chosen for Level 24 - [[8,0,4][5,2,6][7,1,3]]
Generated Nodes:
[[8,4,0][5,2,6][7,1,3]] - f(n) = 24 + 6 = 30
[[0,8,4][5,2,6][7,1,3]] - f(n) = 24 + 6 = 30
[[8,2,4][5,0,6][7,1,3]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,4][5,6,0][7,1,3]]
Generated Nodes:
[[8,2,0][5,6,4][7,1,3]] - f(n) = 24 + 6 = 30
[[8,2,4][5,0,6][7,1,3]] - Already visited Node!
[[8,2,4][5,6,3][7,1,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,7,5][4,6,0][8,2,3]]
Generated Nodes:
[[1,7,0][4,6,5][8,2,3]] - f(n) = 24 + 6 = 30
[[1,7,5][4,0,6][8,2,3]] - Already visited Node!
[[1,7,5][4,6,3][8,2,0]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 24 - [[1,7,5][0,4,6][8,2,3]]

```
Generated Nodes:
[[0,7,5][1,4,6][8,2,3]] - f(n) = 24 + 7 = 31
[[1,7,5][4,0,6][8,2,3]] - Already visited Node!
[[1,7,5][8,4,6][0,2,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[7,8,2][4,0,5][3,1,6]]
Generated Nodes:
[[7,0,2][4,8,5][3,1,6]] - f(n) = 23 + 7 = 30
[[7,8,2][4,5,0][3,1,6]] - Already visited Node!
[[7,8,2][0,4,5][3,1,6]] - f(n) = 23 + 8 = 31
[[7,8,2][4,1,5][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[2,7,4][3,5,6][8,0,1]]
Generated Nodes:
[[2,7,4][3,0,6][8,5,1]] - f(n) = 24 + 7 = 31
[[2,7,4][3,5,6][8,1,0]] - f(n) = 24 + 6 = 30
[[2,7,4][3,5,6][0,8,1]] - Already visited Node!
Node Chosen for Level 24 - [[2,0,4][5,3,6][7,1,8]]
Generated Nodes:
[[2,4,0][5,3,6][7,1,8]] - f(n) = 24 + 6 = 30
[[0,2,4][5,3,6][7,1,8]] - Already visited Node!
[[2,3,4][5,0,6][7,1,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,0,4][3,2,6][7,1,8]]
Generated Nodes:
[[5,4,0][3,2,6][7,1,8]] - f(n) = 24 + 6 = 30
[[0,5,4][3,2,6][7,1,8]] - f(n) = 24 + 6 = 30
[[5,2,4][3,0,6][7,1,8]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][3,6,0][7,1,8]]
Generated Nodes:
[[5,2,0][3,6,4][7,1,8]] - f(n) = 24 + 6 = 30
[[5,2,4][3,0,6][7,1,8]] - Already visited Node!
[[5,2,4][3,6,8][7,1,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,4,6][2,5,0][3,8,1]]
```

Generated Nodes:

[[7,4,0][2,5,6][3,8,1]] - Already visited Node!

```
[[7,4,6][2,0,5][3,8,1]] - f(n) = 24 + 7 = 31
[[7,4,6][2,5,1][3,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[8,1,2][5,4,6][0,7,3]]
Generated Nodes:
[[8,1,2][0,4,6][5,7,3]] - f(n) = 23 + 7 = 30
[[8,1,2][5,4,6][7,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[2,0,4][3,5,7][1,8,6]]
Generated Nodes:
[[2,4,0][3,5,7][1,8,6]] - f(n) = 24 + 6 = 30
[[0,2,4][3,5,7][1,8,6]] - Already visited Node!
[[2,5,4][3,0,7][1,8,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[3,2,4][1,5,7][8,0,6]]
Generated Nodes:
[[3,2,4][1,0,7][8,5,6]] - f(n) = 24 + 7 = 31
[[3,2,4][1,5,7][8,6,0]] - f(n) = 24 + 6 = 30
[[3,2,4][1,5,7][0,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[4,8,2][0,5,6][3,7,1]]
Generated Nodes:
[[0,8,2][4,5,6][3,7,1]] - Already visited Node!
[[4,8,2][5,0,6][3,7,1]] - f(n) = 24 + 7 = 31
[[4,8,2][3,5,6][0,7,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[2,0,4][8,5,1][7,3,6]]
Generated Nodes:
[[2,4,0][8,5,1][7,3,6]] - f(n) = 24 + 6 = 30
[[0,2,4][8,5,1][7,3,6]] - Already visited Node!
[[2,5,4][8,0,1][7,3,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[2,0,4][8,5,6][3,7,1]]
Generated Nodes:
[[2,4,0][8,5,6][3,7,1]] - f(n) = 24 + 6 = 30
[[0,2,4][8,5,6][3,7,1]] - Already visited Node!
[[2,5,4][8,0,6][3,7,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 25 - [[7,2,3][5,0,4][1,8,6]]
```

```
Generated Nodes:
```

```
[[7,0,3][5,2,4][1,8,6]] - f(n) = 25 + 6 = 31

[[7,2,3][5,4,0][1,8,6]] - f(n) = 25 + 5 = 30

[[7,2,3][0,5,4][1,8,6]] - Already visited Node!

[[7,2,3][5,8,4][1,0,6]] - f(n) = 25 + 6 = 31
```

Node Chosen for Level 25 - [[0,2,4][1,7,6][5,8,3]]

Generated Nodes:

```
[[2,0,4][1,7,6][5,8,3]] - f(n) = 25 + 6 = 31
[[1,2,4][0,7,6][5,8,3]] - Already visited Node!
```

Node Chosen for Level 25 - [[0,1,2][4,7,6][5,8,3]]

Generated Nodes:

```
[[1,0,2][4,7,6][5,8,3]] - Already visited Node! [[4,1,2][0,7,6][5,8,3]] - f(n) = 25 + 6 = 31
```

Node Chosen for Level 23 - [[7,2,8][3,0,5][4,1,6]]

Generated Nodes:

```
[[7,0,8][3,2,5][4,1,6]] - f(n) = 23 + 8 = 31

[[7,2,8][3,5,0][4,1,6]] - Already visited Node!

[[7,2,8][0,3,5][4,1,6]] - f(n) = 23 + 7 = 30

[[7,2,8][3,1,5][4,0,6]] - f(n) = 23 + 7 = 30
```

Nada Chara far Laval 24 [[2 0 0][5 2 4][7 0 1]]

Node Chosen for Level 24 - [[2,0,6][5,3,4][7,8,1]]

Generated Nodes :

```
[[2,6,0][5,3,4][7,8,1]] - f(n) = 24 + 6 = 30

[[0,2,6][5,3,4][7,8,1]] - Already visited Node!

[[2,3,6][5,0,4][7,8,1]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 24 - [[5,0,6][3,2,4][7,8,1]]

Generated Nodes:

```
[[5,6,0][3,2,4][7,8,1]] - f(n) = 24 + 6 = 30

[[0,5,6][3,2,4][7,8,1]] - f(n) = 24 + 6 = 30

[[5,2,6][3,0,4][7,8,1]] - Already visited Node!
```

Node Chosen for Level 24 - [[5,2,6][3,8,4][7,0,1]]

Generated Nodes:

```
[[5,2,6][3,0,4][7,8,1]] - Already visited Node! [[5,2,6][3,8,4][7,1,0]] - f(n) = 24 + 6 = 30
```

```
[[5,2,6][3,8,4][0,7,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[2,0,6][5,4,1][7,8,3]]
Generated Nodes:
[[2,6,0][5,4,1][7,8,3]] - f(n) = 24 + 6 = 30
[[0,2,6][5,4,1][7,8,3]] - Already visited Node!
[[2,4,6][5,0,1][7,8,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[8,7,4][2,0,6][3,5,1]]
Generated Nodes:
[[8,0,4][2,7,6][3,5,1]] - f(n) = 23 + 7 = 30
[[8,7,4][2,6,0][3,5,1]] - f(n) = 23 + 8 = 31
[[8,7,4][0,2,6][3,5,1]] - f(n) = 23 + 7 = 30
[[8,7,4][2,5,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[4,2,8][7,0,5][3,1,6]]
Generated Nodes:
[[4,0,8][7,2,5][3,1,6]] - Already visited Node!
[[4,2,8][7,5,0][3,1,6]] - Already visited Node!
[[4,2,8][0,7,5][3,1,6]] - Already visited Node!
[[4,2,8][7,1,5][3,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,8][1,0,5][6,3,4]]
Generated Nodes:
[[7,0,8][1,2,5][6,3,4]] - f(n) = 23 + 8 = 31
[[7,2,8][1,5,0][6,3,4]] - Already visited Node! [[7,2,8][0,1,5][6,3,4]] - f(n) = 23 + 7 = 30
[[7,2,8][1,3,5][6,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,8][6,0,5][3,1,4]]
Generated Nodes:
[[7,0,8][6,2,5][3,1,4]] - f(n) = 23 + 8 = 31
[[7,2,8][6,5,0][3,1,4]] - Already visited Node!
[[7,2,8][0,6,5][3,1,4]] - Already visited Node!
[[7,2,8][6,1,5][3,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,8][3,0,5][6,4,1]]
Generated Nodes:
[[7,0,8][3,2,5][6,4,1]] - f(n) = 23 + 8 = 31
[[7,2,8][3,5,0][6,4,1]] - Already visited Node!
```

```
[[7,2,8][0,3,5][6,4,1]] - f(n) = 23 + 7 = 30
[[7,2,8][3,4,5][6,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 25 - [[1,2,4][8,0,5][7,3,6]]
Generated Nodes:
[[1,0,4][8,2,5][7,3,6]] - f(n) = 25 + 6 = 31
[[1,2,4][8,5,0][7,3,6]] - Already visited Node!
[[1,2,4][0,8,5][7,3,6]] - f(n) = 25 + 5 = 30
[[1,2,4][8,3,5][7,0,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[1,2,4][8,0,5][7,3,6]]
Generated Nodes:
[[1,0,4][8,2,5][7,3,6]] - f(n) = 25 + 6 = 31
[[1,2,4][8,5,0][7,3,6]] - Already visited Node!
[[1,2,4][0,8,5][7,3,6]] - f(n) = 25 + 5 = 30
[[1,2,4][8,3,5][7,0,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[7,2,4][5,1,0][3,8,6]]
Generated Nodes:
[[7,2,0][5,1,4][3,8,6]] - f(n) = 24 + 6 = 30
[[7,2,4][5,0,1][3,8,6]] - f(n) = 24 + 6 = 30
[[7,2,4][5,1,6][3,8,0]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,2][4,1,6][8,5,3]]
Generated Nodes:
[[7,2,0][4,1,6][8,5,3]] - Already visited Node!
[[0,7,2][4,1,6][8,5,3]] - f(n) = 24 + 6 = 30
[[7,1,2][4,0,6][8,5,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[3,2,6][5,7,0][4,8,1]]
Generated Nodes:
[[3,2,0][5,7,6][4,8,1]] - Already visited Node!
[[3,2,6][5,0,7][4,8,1]] - f(n) = 24 + 6 = 30
[[3,2,6][5,7,1][4,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[2,1,4][7,5,8][0,3,6]]
Generated Nodes:
[[2,1,4][0,5,8][7,3,6]] - Already visited Node!
[[2,1,4][7,5,8][3,0,6]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[1,5,4][7,2,8][0,3,6]]
Generated Nodes:
[[1,5,4][0,2,8][7,3,6]] - Already visited Node!
[[1,5,4][7,2,8][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 25 - [[2,1,4][7,5,6][0,8,3]]
Generated Nodes:
[[2,1,4][0,5,6][7,8,3]] - Already visited Node!
[[2,1,4][7,5,6][8,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,5,4][7,2,6][0,8,3]]
Generated Nodes:
[[1,5,4][0,2,6][7,8,3]] - Already visited Node!
[[1,5,4][7,2,6][8,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[1,2,6][5,7,0][8,4,3]]
Generated Nodes:
[[1,2,0][5,7,6][8,4,3]] - Already visited Node!
[[1,2,6][5,0,7][8,4,3]] - f(n) = 24 + 6 = 30
[[1,2,6][5,7,3][8,4,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,4][1,3,0][5,8,6]]
Generated Nodes:
[[7,2,0][1,3,4][5,8,6]] - Already visited Node! [[7,2,4][1,0,3][5,8,6]] - f(n) = 24 + 6 = 30
[[7,2,4][1,3,6][5,8,0]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,2][4,3,6][8,1,5]]
Generated Nodes:
[[7,2,0][4,3,6][8,1,5]] - Already visited Node! [[0,7,2][4,3,6][8,1,5]] - f(n) = 24 + 6 = 30
[[7,3,2][4,0,6][8,1,5]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[0,4,7][1,5,2][8,3,6]]
Generated Nodes:
[[4,0,7][1,5,2][8,3,6]] - f(n) = 23 + 7 = 30
[[1,4,7][0,5,2][8,3,6]] - Already visited Node!
```

```
Node Chosen for Level 24 - [[5,3,2][4,7,6][8,0,1]]
Generated Nodes:
[[5,3,2][4,0,6][8,7,1]] - f(n) = 24 + 6 = 30
[[5,3,2][4,7,6][8,1,0]] - f(n) = 24 + 6 = 30
[[5,3,2][4,7,6][0,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[1,5,8][7,4,2][0,3,6]]
Generated Nodes:
[[1,5,8][0,4,2][7,3,6]] - Already visited Node!
[[1,5,8][7,4,2][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[5,3,2][4,7,6][8,0,1]]
Generated Nodes:
[[5,3,2][4,0,6][8,7,1]] - f(n) = 24 + 6 = 30
[[5,3,2][4,7,6][8,1,0]] - f(n) = 24 + 6 = 30
[[5,3,2][4,7,6][0,8,1]] - Already visited Node!
Node Chosen for Level 24 - [[3,7,2][1,5,0][4,8,6]]
Generated Nodes:
[[3,7,0][1,5,2][4,8,6]] - f(n) = 24 + 6 = 30
[[3,7,2][1,0,5][4,8,6]] - f(n) = 24 + 7 = 31
[[3,7,2][1,5,6][4,8,0]] - Already visited Node!
Node Chosen for Level 24 - [[1,2,6][5,7,0][8,4,3]]
Generated Nodes:
[[1,2,0][5,7,6][8,4,3]] - Already visited Node!
[[1,2,6][5,0,7][8,4,3]] - f(n) = 24 + 6 = 30
[[1,2,6][5,7,3][8,4,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,7,2][3,4,6][5,0,8]]
Generated Nodes:
[[1,7,2][3,0,6][5,4,8]] - f(n) = 24 + 6 = 30
[[1,7,2][3,4,6][5,8,0]] - Already visited Node!
[[1,7,2][3,4,6][0,5,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[0,1,2][7,5,8][3,6,4]]
Generated Nodes:
[[1,0,2][7,5,8][3,6,4]] - Already visited Node!
```

```
[[7,1,2][0,5,8][3,6,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,8,5][1,6,2][7,3,4]]
Generated Nodes:
[[8,0,5][1,6,2][7,3,4]] - f(n) = 23 + 7 = 30
[[1,8,5][0,6,2][7,3,4]] - Already visited Node!
Node Chosen for Level 24 - [[3,5,2][4,7,6][1,0,8]]
Generated Nodes:
[[3,5,2][4,0,6][1,7,8]] - f(n) = 24 + 6 = 30
[[3,5,2][4,7,6][1,8,0]] - Already visited Node!
[[3,5,2][4,7,6][0,1,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[3,2,7][0,4,5][1,8,6]]
Generated Nodes:
[[0,2,7][3,4,5][1,8,6]] - f(n) = 24 + 6 = 30
[[3,2,7][4,0,5][1,8,6]] - Already visited Node!
[[3,2,7][1,4,5][0,8,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[3,2,7][4,8,5][1,0,6]]
Generated Nodes:
[[3,2,7][4,0,5][1,8,6]] - Already visited Node!
[[3,2,7][4,8,5][1,6,0]] - f(n) = 24 + 6 = 30
[[3,2,7][4,8,5][0,1,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,6][1,8,0][7,4,3]]
Generated Nodes:
[[5,2,0][1,8,6][7,4,3]] - Already visited Node!
[[5,2,6][1,0,8][7,4,3]] - f(n) = 24 + 6 = 30
[[5,2,6][1,8,3][7,4,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[0,1,3][5,4,2][7,8,6]]
Generated Nodes:
[[1,0,3][5,4,2][7,8,6]] - Already visited Node!
[[5,1,3][0,4,2][7,8,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[1,2,7][0,4,5][8,3,6]]
Generated Nodes:
```

```
[[0,2,7][1,4,5][8,3,6]] - f(n) = 24 + 7 = 31
[[1,2,7][4,0,5][8,3,6]] - Already visited Node!
[[1,2,7][8,4,5][0,3,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[4,3,2][7,5,6][0,8,1]]
Generated Nodes:
[[4,3,2][0,5,6][7,8,1]] - Already visited Node!
[[4,3,2][7,5,6][8,0,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[7,5,3][4,8,2][1,0,6]]
Generated Nodes:
[[7,5,3][4,0,2][1,8,6]] - Already visited Node!
[[7,5,3][4,8,2][1,6,0]] - f(n) = 24 + 6 = 30
[[7,5,3][4,8,2][0,1,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,4,3][7,2,6][1,0,8]]
Generated Nodes:
[[5,4,3][7,0,6][1,2,8]] - f(n) = 24 + 6 = 30
[[5,4,3][7,2,6][1,8,0]] - Already visited Node!
[[5,4,3][7,2,6][0,1,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[0,2,4][1,5,6][8,7,3]]
Generated Nodes:
[[2,0,4][1,5,6][8,7,3]] - f(n) = 25 + 6 = 31
[[1,2,4][0,5,6][8,7,3]] - Already visited Node!
Node Chosen for Level 25 - [[8,2,4][7,5,6][0,1,3]]
Generated Nodes:
[[8,2,4][0,5,6][7,1,3]] - Already visited Node!
[[8,2,4][7,5,6][1,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[5,0,2][7,1,6][3,8,4]]
Generated Nodes:
[[5,2,0][7,1,6][3,8,4]] - Already visited Node!
[[0,5,2][7,1,6][3,8,4]] - f(n) = 24 + 6 = 30
[[5,1,2][7,0,6][3,8,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[8,2,6][4,7,0][5,3,1]]
Generated Nodes:
```

```
[[8,2,0][4,7,6][5,3,1]] - Already visited Node!
[[8,2,6][4,0,7][5,3,1]] - f(n) = 24 + 6 = 30
[[8,2,6][4,7,1][5,3,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[1,7,2][5,0,8][6,3,4]]
Generated Nodes:
[[1,0,2][5,7,8][6,3,4]] - f(n) = 23 + 7 = 30
[[1,7,2][5,8,0][6,3,4]] - f(n) = 23 + 7 = 30
[[1,7,2][0,5,8][6,3,4]] - Already visited Node!
[[1,7,2][5,3,8][6,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[5,0,4][3,2,6][1,8,7]]
Generated Nodes:
[[5,4,0][3,2,6][1,8,7]] - f(n) = 24 + 6 = 30
[[0,5,4][3,2,6][1,8,7]] - f(n) = 24 + 6 = 30
[[5,2,4][3,0,6][1,8,7]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][3,6,0][1,8,7]]
Generated Nodes:
[[5,2,0][3,6,4][1,8,7]] - f(n) = 24 + 6 = 30
[[5,2,4][3,0,6][1,8,7]] - Already visited Node!
[[5,2,4][3,6,7][1,8,0]] - Already visited Node!
Node Chosen for Level 24 - [[2,0,5][4,7,6][8,3,1]]
Generated Nodes:
[[2,5,0][4,7,6][8,3,1]] - f(n) = 24 + 6 = 30
[[0,2,5][4,7,6][8,3,1]] - Already visited Node!
[[2,7,5][4,0,6][8,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,1][7,4,6][3,0,8]]
Generated Nodes:
[[5,2,1][7,0,6][3,4,8]] - Already visited Node!
[[5,2,1][7,4,6][3,8,0]] - Already visited Node!
[[5,2,1][7,4,6][0,3,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[8,2,4][3,0,6][7,5,1]]
Generated Nodes:
[[8,0,4][3,2,6][7,5,1]] - f(n) = 25 + 6 = 31
[[8,2,4][3,6,0][7,5,1]] - f(n) = 25 + 6 = 31
```

```
[[8,2,4][0,3,6][7,5,1]] - f(n) = 25 + 5 = 30
[[8,2,4][3,5,6][7,0,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,0,4][3,2,6][1,8,7]]
Generated Nodes:
[[5,4,0][3,2,6][1,8,7]] - f(n) = 24 + 6 = 30
[[0,5,4][3,2,6][1,8,7]] - f(n) = 24 + 6 = 30
[[5,2,4][3,0,6][1,8,7]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][3,6,0][1,8,7]]
Generated Nodes:
[[5,2,0][3,6,4][1,8,7]] - f(n) = 24 + 6 = 30
[[5,2,4][3,0,6][1,8,7]] - Already visited Node!
[[5,2,4][3,6,7][1,8,0]] - Already visited Node!
Node Chosen for Level 26 - [[1,2,6][4,7,0][5,8,3]]
Generated Nodes:
[[1,2,0][4,7,6][5,8,3]] - Already visited Node!
[[1,2,6][4,0,7][5,8,3]] - f(n) = 26 + 4 = 30
[[1,2,6][4,7,3][5,8,0]] - f(n) = 26 + 4 = 30
Node Chosen for Level 24 - [[2,3,4][7,5,6][1,0,8]]
Generated Nodes:
[[2,3,4][7,0,6][1,5,8]] - f(n) = 24 + 7 = 31
[[2,3,4][7,5,6][1,8,0]] - Already visited Node!
[[2,3,4][7,5,6][0,1,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,4,3][7,2,6][1,0,8]]
Generated Nodes:
[[5,4,3][7,0,6][1,2,8]] - f(n) = 24 + 6 = 30
[[5,4,3][7,2,6][1,8,0]] - Already visited Node!
[[5,4,3][7,2,6][0,1,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,3,2][4,6,0][7,1,8]]
Generated Nodes:
[[5,3,0][4,6,2][7,1,8]] - f(n) = 24 + 6 = 30
[[5,3,2][4,0,6][7,1,8]] - Already visited Node!
[[5,3,2][4,6,8][7,1,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[3,7,4][2,5,6][1,0,8]]
```

```
Generated Nodes:
[[3,7,4][2,0,6][1,5,8]] - f(n) = 24 + 7 = 31
[[3,7,4][2,5,6][1,8,0]] - Already visited Node!
[[3,7,4][2,5,6][0,1,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,6][1,5,0][4,3,8]]
Generated Nodes:
[[7,2,0][1,5,6][4,3,8]] - Already visited Node!
[[7,2,6][1,0,5][4,3,8]] - f(n) = 24 + 7 = 31
[[7,2,6][1,5,8][4,3,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,6][8,5,0][4,1,3]]
Generated Nodes:
[[7,2,0][8,5,6][4,1,3]] - Already visited Node!
[[7,2,6][8,0,5][4,1,3]] - f(n) = 24 + 7 = 31
[[7,2,6][8,5,3][4,1,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[7,3,0][4,5,2][1,8,6]]
Generated Nodes:
[[7,0,3][4,5,2][1,8,6]] - Already visited Node!
[[7,3,2][4,5,0][1,8,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[0,1,8][4,5,2][7,3,6]]
Generated Nodes:
[[1,0,8][4,5,2][7,3,6]] - Already visited Node!
[[4,1,8][0,5,2][7,3,6]] - f(n) = 25 + 6 = 31
Node Chosen for Level 26 - [[3,2,7][4,5,6][1,0,8]]
Generated Nodes:
[[3,2,7][4,0,6][1,5,8]] - f(n) = 26 + 5 = 31
[[3,2,7][4,5,6][1,8,0]] - Already visited Node!
[[3,2,7][4,5,6][0,1,8]] - f(n) = 26 + 4 = 30
Node Chosen for Level 25 - [[7,2,3][6,0,5][1,8,4]]
Generated Nodes:
[[7,0,3][6,2,5][1,8,4]] - f(n) = 25 + 6 = 31
[[7,2,3][6,5,0][1,8,4]] - Already visited Node!
```

[[7,2,3][0,6,5][1,8,4]] - Already visited Node!

```
[[7,2,3][6,8,5][1,0,4]] - f(n) = 25 + 6 = 31
Node Chosen for Level 26 - [[2,0,5][4,3,6][7,8,1]]
Generated Nodes:
[[2,5,0][4,3,6][7,8,1]] - f(n) = 26 + 4 = 30
[[0,2,5][4,3,6][7,8,1]] - Already visited Node!
[[2,3,5][4,0,6][7,8,1]] - f(n) = 26 + 4 = 30
Node Chosen for Level 23 - [[7,6,0][3,2,5][4,8,1]]
Generated Nodes:
[[7,0,6][3,2,5][4,8,1]] - Already visited Node!
[[7,6,5][3,2,0][4,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,7,6][3,2,5][4,8,1]]
Generated Nodes:
[[7,0,6][3,2,5][4,8,1]] - Already visited Node!
[[3,7,6][0,2,5][4,8,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,4,0][5,2,6][3,1,8]]
Generated Nodes:
[[7,0,4][5,2,6][3,1,8]] - Already visited Node!
[[7,4,6][5,2,0][3,1,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,7,4][5,2,6][3,1,8]]
Generated Nodes:
[[7,0,4][5,2,6][3,1,8]] - Already visited Node!
[[5,7,4][0,2,6][3,1,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,0][5,6,4][3,1,8]]
Generated Nodes:
[[7,0,2][5,6,4][3,1,8]] - f(n) = 23 + 8 = 31
[[7,2,4][5,6,0][3,1,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,4][5,6,8][3,1,0]]
Generated Nodes:
[[7,2,4][5,6,0][3,1,8]] - Already visited Node!
[[7,2,4][5,6,8][3,0,1]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[7,6,0][4,2,1][8,5,3]]
Generated Nodes:
[[7,0,6][4,2,1][8,5,3]] - Already visited Node!
[[7,6,1][4,2,0][8,5,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,6][4,2,1][8,5,3]]
Generated Nodes:
[[7,0,6][4,2,1][8,5,3]] - Already visited Node!
[[4,7,6][0,2,1][8,5,3]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,2,6][7,4,1][8,5,3]]
Generated Nodes:
[[2,0,6][7,4,1][8,5,3]] - f(n) = 23 + 8 = 31
[[7,2,6][0,4,1][8,5,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][8,4,1][0,5,3]]
Generated Nodes:
[[7,2,6][0,4,1][8,5,3]] - Already visited Node!
[[7,2,6][8,4,1][5,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[8,0,2][3,7,5][4,1,6]]
Generated Nodes:
[[8,2,0][3,7,5][4,1,6]] - f(n) = 22 + 7 = 29
[[0,8,2][3,7,5][4,1,6]] - f(n) = 22 + 8 = 30
[[8,7,2][3,0,5][4,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,2][0,3,5][4,1,6]]
Generated Nodes:
[[0,7,2][8,3,5][4,1,6]] - f(n) = 22 + 8 = 30
[[8,7,2][3,0,5][4,1,6]] - Already visited Node!
[[8,7,2][4,3,5][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,2][3,1,5][4,0,6]]
Generated Nodes:
[[8,7,2][3,0,5][4,1,6]] - Already visited Node!
[[8,7,2][3,1,5][4,6,0]] - f(n) = 22 + 8 = 30
[[8,7,2][3,1,5][0,4,6]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 24 - [[2,5,4][0,7,6][1,8,3]]
Generated Nodes:
[[0,5,4][2,7,6][1,8,3]] - f(n) = 24 + 6 = 30
[[2,5,4][7,0,6][1,8,3]] - Already visited Node!
[[2,5,4][1,7,6][0,8,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[3,7,0][5,6,2][4,8,1]]
Generated Nodes:
[[3,0,7][5,6,2][4,8,1]] - f(n) = 23 + 7 = 30
[[3,7,2][5,6,0][4,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,2][5,6,1][4,8,0]]
Generated Nodes:
[[3,7,2][5,6,0][4,8,1]] - Already visited Node!
[[3,7,2][5,6,1][4,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[3,7,2][5,8,6][4,1,0]]
Generated Nodes:
[[3,7,2][5,8,0][4,1,6]] - f(n) = 23 + 8 = 31
[[3,7,2][5,8,6][4,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,2][5,8,6][0,4,1]]
Generated Nodes:
[[3,7,2][0,8,6][5,4,1]] - f(n) = 23 + 7 = 30
[[3,7,2][5,8,6][4,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,8,2][5,3,6][4,7,1]]
Generated Nodes:
[[8,0,2][5,3,6][4,7,1]] - f(n) = 23 + 7 = 30
[[5,8,2][0,3,6][4,7,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][0,8,6][1,7,3]]
Generated Nodes:
[[0,2,4][5,8,6][1,7,3]] - f(n) = 24 + 6 = 30
[[5,2,4][8,0,6][1,7,3]] - Already visited Node!
[[5,2,4][1,8,6][0,7,3]] - Already visited Node!
Node Chosen for Level 24 - [[4,0,2][5,7,6][1,8,3]]
```

```
Generated Nodes:
[[4,2,0][5,7,6][1,8,3]] - f(n) = 24 + 5 = 29
[[0,4,2][5,7,6][1,8,3]] - Already visited Node!
[[4,7,2][5,0,6][1,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[0,7,1][3,2,5][6,8,4]]
Generated Nodes:
[[7,0,1][3,2,5][6,8,4]] - Already visited Node!
[[3,7,1][0,2,5][6,8,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[7,2,6][5,1,0][4,8,3]]
Generated Nodes:
[[7,2,0][5,1,6][4,8,3]] - f(n) = 24 + 5 = 29
[[7,2,6][5,0,1][4,8,3]] - Already visited Node! [[7,2,6][5,1,3][4,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[3,0,2][4,7,6][8,5,1]]
Generated Nodes:
[[3,2,0][4,7,6][8,5,1]] - f(n) = 24 + 5 = 29
[[0,3,2][4,7,6][8,5,1]] - f(n) = 24 + 6 = 30
[[3,7,2][4,0,6][8,5,1]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,0][5,6,2][8,4,3]]
Generated Nodes:
[[1,0,7][5,6,2][8,4,3]] - f(n) = 23 + 7 = 30
[[1,7,2][5,6,0][8,4,3]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,2][5,6,3][8,4,0]]
Generated Nodes:
[[1,7,2][5,6,0][8,4,3]] - Already visited Node!
[[1,7,2][5,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,6][4,1,5][3,0,8]]
Generated Nodes:
[[7,2,6][4,0,5][3,1,8]] - Already visited Node!
[[7,2,6][4,1,5][3,8,0]] - f(n) = 24 + 5 = 29
[[7,2,6][4,1,5][0,3,8]] - f(n) = 24 + 6 = 30
```

```
Node Chosen for Level 23 - [[0,7,3][1,2,5][8,6,4]]
Generated Nodes:
[[7,0,3][1,2,5][8,6,4]] - Already visited Node!
[[1,7,3][0,2,5][8,6,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[8,1,2][0,7,4][3,5,6]]
Generated Nodes:
[[0,1,2][8,7,4][3,5,6]] - Already visited Node!
[[8,1,2][7,0,4][3,5,6]] - f(n) = 22 + 8 = 30
[[8,1,2][3,7,4][0,5,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,2][1,8,4][3,5,6]]
Generated Nodes:
[[7,2,0][1,8,4][3,5,6]] - f(n) = 22 + 7 = 29
[[0,7,2][1,8,4][3,5,6]] - Already visited Node!
[[7,8,2][1,0,4][3,5,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[2,4,6][5,0,7][3,8,1]]
Generated Nodes:
[[2,0,6][5,4,7][3,8,1]] - f(n) = 23 + 7 = 30
[[2,4,6][5,7,0][3,8,1]] - Already visited Node!
[[2,4,6][0,5,7][3,8,1]] - f(n) = 23 + 6 = 29
[[2,4,6][5,8,7][3,0,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[2,4,6][5,7,1][3,8,0]]
Generated Nodes:
[[2,4,6][5,7,0][3,8,1]] - Already visited Node!
[[2,4,6][5,7,1][3,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[2,7,0][5,6,4][3,8,1]]
Generated Nodes:
[[2,0,7][5,6,4][3,8,1]] - f(n) = 23 + 7 = 30
[[2,7,4][5,6,0][3,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[2,7,4][5,6,1][3,8,0]]
Generated Nodes:
[[2,7,4][5,6,0][3,8,1]] - Already visited Node!
[[2,7,4][5,6,1][3,0,8]] - f(n) = 23 + 8 = 31
```

```
Node Chosen for Level 23 - [[2,7,4][5,8,6][0,3,1]]
Generated Nodes:
[[2,7,4][0,8,6][5,3,1]] - f(n) = 23 + 7 = 30
[[2,7,4][5,8,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,0][3,2,6][8,7,1]]
Generated Nodes:
[[5,0,4][3,2,6][8,7,1]] - Already visited Node!
[[5,4,6][3,2,0][8,7,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,5,4][3,2,6][8,7,1]]
Generated Nodes:
[[5,0,4][3,2,6][8,7,1]] - Already visited Node!
[[3,5,4][0,2,6][8,7,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][3,6,4][8,7,1]]
Generated Nodes:
[[5,0,2][3,6,4][8,7,1]] - f(n) = 23 + 8 = 31
[[5,2,4][3,6,0][8,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,6,1][8,7,0]]
Generated Nodes:
[[5,2,4][3,6,0][8,7,1]] - Already visited Node!
[[5,2,4][3,6,1][8,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][3,7,4][8,1,6]]
Generated Nodes:
[[5,0,2][3,7,4][8,1,6]] - f(n) = 23 + 8 = 31
[[5,2,4][3,7,0][8,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,0,7][8,1,6]]
Generated Nodes:
[[5,0,4][3,2,7][8,1,6]] - f(n) = 23 + 8 = 31
[[5,2,4][3,7,0][8,1,6]] - Already visited Node!
[[5,2,4][0,3,7][8,1,6]] - f(n) = 23 + 7 = 30
[[5,2,4][3,1,7][8,0,6]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[2,4,6][5,0,8][7,3,1]]
Generated Nodes:
[[2,0,6][5,4,8][7,3,1]] - f(n) = 23 + 7 = 30
[[2,4,6][5,8,0][7,3,1]] - Already visited Node!
[[2,4,6][0,5,8][7,3,1]] - f(n) = 23 + 6 = 29
[[2,4,6][5,3,8][7,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,4,6][5,8,1][7,3,0]]
Generated Nodes:
[[2,4,6][5,8,0][7,3,1]] - Already visited Node!
[[2,4,6][5,8,1][7,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,8,0][5,6,4][7,3,1]]
Generated Nodes:
[[2,0,8][5,6,4][7,3,1]] - f(n) = 23 + 7 = 30
[[2,8,4][5,6,0][7,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[2,8,4][5,6,1][7,3,0]]
Generated Nodes:
[[2,8,4][5,6,0][7,3,1]] - Already visited Node!
[[2,8,4][5,6,1][7,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,6][8,0,2][7,3,1]]
Generated Nodes:
[[5,0,6][8,4,2][7,3,1]] - f(n) = 23 + 7 = 30
[[5,4,6][8,2,0][7,3,1]] - Already visited Node!
[[5,4,6][0,8,2][7,3,1]] - f(n) = 23 + 7 = 30
[[5,4,6][8,3,2][7,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,6][8,2,1][7,3,0]]
Generated Nodes:
[[5,4,6][8,2,0][7,3,1]] - Already visited Node!
[[5,4,6][8,2,1][7,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,2][8,6,4][7,3,1]]
Generated Nodes:
[[5,0,2][8,6,4][7,3,1]] - Already visited Node!
```

[[8,5,2][0,6,4][7,3,1]] - f(n) = 23 + 7 = 30

```
Node Chosen for Level 23 - [[5,6,2][8,0,4][7,3,1]]
Generated Nodes:
[[5,0,2][8,6,4][7,3,1]] - Already visited Node!
[[5,6,2][8,4,0][7,3,1]] - f(n) = 23 + 7 = 30
[[5,6,2][0,8,4][7,3,1]] - f(n) = 23 + 7 = 30
[[5,6,2][8,3,4][7,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,0][7,2,6][1,3,8]]
Generated Nodes:
[[5,0,4][7,2,6][1,3,8]] - Already visited Node!
[[5,4,6][7,2,0][1,3,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,5,4][7,2,6][1,3,8]]
Generated Nodes:
[[5,0,4][7,2,6][1,3,8]] - Already visited Node!
[[7,5,4][0,2,6][1,3,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][7,6,4][1,3,8]]
Generated Nodes:
[[5,0,2][7,6,4][1,3,8]] - f(n) = 23 + 8 = 31
[[5,2,4][7,6,0][1,3,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][7,6,8][1,3,0]]
Generated Nodes:
[[5,2,4][7,6,0][1,3,8]] - Already visited Node!
[[5,2,4][7,6,8][1,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,2][4,0,3][1,6,8]]
Generated Nodes:
[[7,0,2][4,5,3][1,6,8]] - f(n) = 23 + 6 = 29
[[7,5,2][4,3,0][1,6,8]] - f(n) = 23 + 7 = 30
[[7,5,2][0,4,3][1,6,8]] - f(n) = 23 + 8 = 31
[[7,5,2][4,6,3][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][4,6,3][0,1,8]]
Generated Nodes:
[[7,5,2][0,6,3][4,1,8]] - f(n) = 23 + 8 = 31
```

```
[[7,5,2][4,6,3][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,0][4,8,2][1,3,6]]
Generated Nodes:
[[7,0,5][4,8,2][1,3,6]] - f(n) = 23 + 7 = 30
[[7,5,2][4,8,0][1,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][4,0,8][1,3,6]]
Generated Nodes:
[[7,0,2][4,5,8][1,3,6]] - f(n) = 23 + 6 = 29
[[7,5,2][4,8,0][1,3,6]] - Already visited Node!
[[7,5,2][0,4,8][1,3,6]] - f(n) = 23 + 8 = 31
[[7,5,2][4,3,8][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,2][7,8,6][4,1,3]]
Generated Nodes:
[[5,0,2][7,8,6][4,1,3]] - f(n) = 23 + 7 = 30
[[7,5,2][0,8,6][4,1,3]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,6][4,5,3][0,1,8]]
Generated Nodes:
[[7,2,6][0,5,3][4,1,8]] - f(n) = 25 + 6 = 31
[[7,2,6][4,5,3][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[2,4,0][7,3,6][1,5,8]]
Generated Nodes:
[[2,0,4][7,3,6][1,5,8]] - Already visited Node!
[[2,4,6][7,3,0][1,5,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[2,3,4][7,0,6][1,5,8]]
Generated Nodes:
[[2,0,4][7,3,6][1,5,8]] - Already visited Node!
[[2,3,4][7,6,0][1,5,8]] - f(n) = 23 + 8 = 31
[[2,3,4][0,7,6][1,5,8]] - f(n) = 23 + 7 = 30
[[2,3,4][7,5,6][1,0,8]] - Already visited Node!
Node Chosen for Level 22 - [[3,0,2][1,7,5][8,6,4]]
Generated Nodes:
```

```
[[3,2,0][1,7,5][8,6,4]] - f(n) = 22 + 7 = 29
[[0,3,2][1,7,5][8,6,4]] - f(n) = 22 + 8 = 30
[[3,7,2][1,0,5][8,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,2][0,1,5][8,6,4]]
Generated Nodes:
[[0,7,2][3,1,5][8,6,4]] - f(n) = 22 + 8 = 30
[[3,7,2][1,0,5][8,6,4]] - Already visited Node!
[[3,7,2][8,1,5][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,7,2][1,6,5][8,0,4]]
Generated Nodes:
[[3,7,2][1,0,5][8,6,4]] - Already visited Node!
[[3,7,2][1,6,5][8,4,0]] - f(n) = 22 + 8 = 30
[[3,7,2][1,6,5][0,8,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[2,4,0][7,1,6][8,5,3]]
Generated Nodes:
[[2,0,4][7,1,6][8,5,3]] - Already visited Node!
[[2,4,6][7,1,0][8,5,3]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[2,1,4][7,0,6][8,5,3]]
Generated Nodes:
[[2,0,4][7,1,6][8,5,3]] - Already visited Node!
[[2,1,4][7,6,0][8,5,3]] - f(n) = 23 + 8 = 31
[[2,1,4][0,7,6][8,5,3]] - f(n) = 23 + 7 = 30
[[2,1,4][7,5,6][8,0,3]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[4,7,0][8,5,2][3,1,6]]
Generated Nodes:
[[4,0,7][8,5,2][3,1,6]] - f(n) = 23 + 7 = 30
[[4,7,2][8,5,0][3,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,1,7][0,4,2][8,3,6]]
Generated Nodes:
[[0,1,7][5,4,2][8,3,6]] - Already visited Node!
[[5,1,7][4,0,2][8,3,6]] - f(n) = 22 + 7 = 29
[[5,1,7][8,4,2][0,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[5,3,0][7,6,2][4,8,1]]
```

```
Generated Nodes:
[[5,0,3][7,6,2][4,8,1]] - f(n) = 23 + 6 = 29
[[5,3,2][7,6,0][4,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,3,2][7,6,1][4,8,0]]
Generated Nodes:
[[5,3,2][7,6,0][4,8,1]] - Already visited Node!
[[5,3,2][7,6,1][4,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[5,3,2][7,8,6][4,1,0]]
Generated Nodes:
[[5,3,2][7,8,0][4,1,6]] - f(n) = 23 + 8 = 31
[[5,3,2][7,8,6][4,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,3,2][7,8,6][0,4,1]]
Generated Nodes:
[[5,3,2][0,8,6][7,4,1]] - f(n) = 23 + 6 = 29
[[5,3,2][7,8,6][4,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,0][2,6,4][3,8,1]]
Generated Nodes:
[[7,0,5][2,6,4][3,8,1]] - f(n) = 23 + 7 = 30
[[7,5,4][2,6,0][3,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,4][2,6,1][3,8,0]]
Generated Nodes:
[[7,5,4][2,6,0][3,8,1]] - Already visited Node!
[[7,5,4][2,6,1][3,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[7,5,4][2,8,6][0,3,1]]
Generated Nodes:
[[7,5,4][0,8,6][2,3,1]] - f(n) = 23 + 7 = 30
[[7,5,4][2,8,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,4][3,0,6][8,2,1]]
Generated Nodes:
```

```
[[7,0,4][3,5,6][8,2,1]] - f(n) =
                                  23 + 6 = 29
[[7,5,4][3,6,0][8,2,1]] - f(n) =
                                  23 + 8 = 31
[[7,5,4][0,3,6][8,2,1]] - f(n) =
                                  23 + 7 = 30
[[7,5,4][3,2,6][8,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,4][3,2,6][8,1,0]]
Generated Nodes:
[[7,5,4][3,2,0][8,1,6]] - f(n) = 23 + 8 = 31
[[7,5,4][3,2,6][8,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[2,6,0][7,5,1][8,3,4]]
Generated Nodes:
[[2,0,6][7,5,1][8,3,4]] - Already visited Node!
[[2,6,1][7,5,0][8,3,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[8,0,2][3,7,5][6,4,1]]
Generated Nodes:
[[8,2,0][3,7,5][6,4,1]] - f(n) = 22 + 7 = 29
[[0,8,2][3,7,5][6,4,1]] - f(n) = 22 + 8 = 30
[[8,7,2][3,0,5][6,4,1]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,2][0,3,5][6,4,1]]
Generated Nodes:
[[0,7,2][8,3,5][6,4,1]] - f(n) = 22 + 8 = 30
[[8,7,2][3,0,5][6,4,1]] - Already visited Node!
[[8,7,2][6,3,5][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,2][3,4,5][6,0,1]]
Generated Nodes:
[[8,7,2][3,0,5][6,4,1]] - Already visited Node!
[[8,7,2][3,4,5][6,1,0]] - f(n) = 22 + 8 = 30
[[8,7,2][3,4,5][0,6,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[2,1,0][7,5,4][8,3,6]]
Generated Nodes:
[[2,0,1][7,5,4][8,3,6]] - Already visited Node!
[[2,1,4][7,5,0][8,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,1,2][0,3,4][5,7,6]]
```

```
Generated Nodes:
[[0,1,2][8,3,4][5,7,6]] - f(n) = 22 + 8 = 30
[[8,1,2][3,0,4][5,7,6]] - f(n) = 22 + 8 = 30
[[8,1,2][5,3,4][0,7,6]] - Already visited Node!
Node Chosen for Level 22 - [[3,0,2][1,7,8][6,5,4]]
Generated Nodes:
[[3,2,0][1,7,8][6,5,4]] - f(n) = 22 + 7 = 29
[[0,3,2][1,7,8][6,5,4]] - f(n) = 22 + 8 = 30
[[3,7,2][1,0,8][6,5,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,2][1,8,0][6,5,4]]
Generated Nodes:
[[3,7,0][1,8,2][6,5,4]] - f(n) = 22 + 8 = 30
[[3,7,2][1,0,8][6,5,4]] - Already visited Node!
[[3,7,2][1,8,4][6,5,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,7,2][0,1,8][6,5,4]]
Generated Nodes:
[[0,7,2][3,1,8][6,5,4]] - f(n) = 22 + 8 = 30
[[3,7,2][1,0,8][6,5,4]] - Already visited Node!
[[3,7,2][6,1,8][0,5,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[5,3,0][7,6,2][4,8,1]]
Generated Nodes:
[[5,0,3][7,6,2][4,8,1]] - f(n) = 23 + 6 = 29
[[5,3,2][7,6,0][4,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,3,2][7,6,1][4,8,0]]
Generated Nodes:
[[5,3,2][7,6,0][4,8,1]] - Already visited Node!
[[5,3,2][7,6,1][4,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[5,3,2][7,8,6][4,1,0]]
Generated Nodes:
[[5,3,2][7,8,0][4,1,6]] - f(n) = 23 + 8 = 31
[[5,3,2][7,8,6][4,0,1]] - Already visited Node!
```

Node Chosen for Level 23 - [[5,3,2][7,8,6][0,4,1]]

```
Generated Nodes:
```

```
[[5,3,2][0,8,6][7,4,1]] - f(n) = 23 + 6 = 29
[[5,3,2][7,8,6][4,0,1]] - Already visited Node!
```

Node Chosen for Level 23 - [[2,4,0][5,7,3][1,8,6]]

Generated Nodes:

```
[[2,0,4][5,7,3][1,8,6]] - Already visited Node!
[[2,4,3][5,7,0][1,8,6]] - f(n) = 23 + 6 = 29
```

Node Chosen for Level 23 - [[2,7,4][5,0,3][1,8,6]]

Generated Nodes:

```
[[2,0,4][5,7,3][1,8,6]] - Already visited Node!
[[2,7,4][5,3,0][1,8,6]] - f(n) = 23 + 7 = 30
[[2,7,4][0,5,3][1,8,6]] - f(n) = 23 + 6 = 29
[[2,7,4][5,8,3][1,0,6]] - f(n) = 23 + 8 = 31
```

Node Chosen for Level 23 - [[5,2,4][1,0,3][8,7,6]]

Generated Nodes:

```
[[5,0,4][1,2,3][8,7,6]] - f(n) = 23 + 8 = 31
[[5,2,4][1,3,0][8,7,6]] - f(n) = 23 + 7 = 30
[[5,2,4][0,1,3][8,7,6]] - f(n) = 23 + 7 = 30
[[5,2,4][1,7,3][8,0,6]] - Already visited Node!
```

Node Chosen for Level 23 - [[5,2,4][1,7,3][8,6,0]]

Generated Nodes:

```
[[5,2,4][1,7,0][8,6,3]] - f(n) = 23 + 7 = 30
[[5,2,4][1,7,3][8,0,6]] - Already visited Node!
```

Node Chosen for Level 23 - [[8,5,6][4,0,7][3,2,1]]

Generated Nodes:

```
[[8,0,6][4,5,7][3,2,1]] - f(n) = 23 + 6 = 29
[[8,5,6][4,7,0][3,2,1]] - Already visited Node!
[[8,5,6][0,4,7][3,2,1]] - f(n) = 23 + 8 = 31
[[8,5,6][4,2,7][3,0,1]] - f(n) = 23 + 7 = 30
```

Node Chosen for Level 23 - [[8,5,6][4,7,1][3,2,0]]

Generated Nodes:

[[8,5,6][4,7,0][3,2,1]] - Already visited Node!

```
[[8,5,6][4,7,1][3,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,8,5][3,7,6][0,2,1]]
Generated Nodes:
[[4,8,5][0,7,6][3,2,1]] - Already visited Node!
[[4,8,5][3,7,6][2,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,4,0][5,7,6][8,1,3]]
Generated Nodes:
[[2,0,4][5,7,6][8,1,3]] - Already visited Node!
[[2,4,6][5,7,0][8,1,3]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[2,7,4][5,0,6][8,1,3]]
Generated Nodes:
[[2,0,4][5,7,6][8,1,3]] - Already visited Node!
[[2,7,4][5,6,0][8,1,3]] - f(n) = 23 + 8 = 31
[[2,7,4][0,5,6][8,1,3]] - f(n) = 23 + 6 = 29
[[2,7,4][5,1,6][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,0][7,6,2][1,8,3]]
Generated Nodes:
[[5,0,4][7,6,2][1,8,3]] - f(n) = 23 + 7 = 30
[[5,4,2][7,6,0][1,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,2][7,6,3][1,8,0]]
Generated Nodes:
[[5,4,2][7,6,0][1,8,3]] - Already visited Node!
[[5,4,2][7,6,3][1,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[5,4,2][7,8,6][1,3,0]]
Generated Nodes:
[[5,4,2][7,8,0][1,3,6]] - f(n) = 23 + 8 = 31
[[5,4,2][7,8,6][1,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,2][7,8,6][0,1,3]]
Generated Nodes:
[[5,4,2][0,8,6][7,1,3]] - f(n) = 23 + 6 = 29
[[5,4,2][7,8,6][1,0,3]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[8,4,0][5,6,2][7,3,1]]
Generated Nodes:
[[8,0,4][5,6,2][7,3,1]] - f(n) = 23 + 7 = 30
[[8,4,2][5,6,0][7,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,4,2][5,6,1][7,3,0]]
Generated Nodes:
[[8,4,2][5,6,0][7,3,1]] - Already visited Node!
[[8,4,2][5,6,1][7,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,7,2][6,5,1][8,4,0]]
Generated Nodes:
[[3,7,2][6,5,0][8,4,1]] - f(n) = 23 + 7 = 30
[[3,7,2][6,5,1][8,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[3,4,0][5,2,7][1,8,6]]
Generated Nodes:
[[3,0,4][5,2,7][1,8,6]] - Already visited Node!
[[3,4,7][5,2,0][1,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,3,4][5,2,7][1,8,6]]
Generated Nodes:
[[3,0,4][5,2,7][1,8,6]] - Already visited Node!
[[5,3,4][0,2,7][1,8,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,2,4][5,8,7][1,6,0]]
Generated Nodes:
[[3,2,4][5,8,0][1,6,7]] - f(n) = 23 + 7 = 30
[[3,2,4][5,8,7][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,2,4][5,8,7][0,1,6]]
Generated Nodes:
[[3,2,4][0,8,7][5,1,6]] - f(n) = 23 + 7 = 30
[[3,2,4][5,8,7][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,4,0][5,2,7][8,3,6]]
```

```
Generated Nodes:
[[1,0,4][5,2,7][8,3,6]] - Already visited Node!
[[1,4,7][5,2,0][8,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,0][5,6,2][8,4,3]]
Generated Nodes:
[[1,0,7][5,6,2][8,4,3]] - f(n) = 23 + 7 = 30
[[1,7,2][5,6,0][8,4,3]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,2][5,6,3][8,4,0]]
Generated Nodes:
[[1,7,2][5,6,0][8,4,3]] - Already visited Node!
[[1,7,2][5,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,2][3,8,4][5,6,0]]
Generated Nodes:
[[1,7,2][3,8,0][5,6,4]] - f(n) = 23 + 7 = 30
[[1,7,2][3,8,4][5,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,2][7,1,6][4,3,8]]
Generated Nodes:
[[5,0,2][7,1,6][4,3,8]] - f(n) = 23 + 7 = 30
[[7,5,2][0,1,6][4,3,8]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,2][3,7,4][1,5,6]]
Generated Nodes:
[[8,2,0][3,7,4][1,5,6]] - f(n) = 22 + 7 = 29
[[0,8,2][3,7,4][1,5,6]] - f(n) = 22 + 8 = 30
[[8,7,2][3,0,4][1,5,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,2][3,4,0][1,5,6]]
Generated Nodes:
[[8,7,0][3,4,2][1,5,6]] - f(n) = 22 + 8 = 30
[[8,7,2][3,0,4][1,5,6]] - Already visited Node!
[[8,7,2][3,4,6][1,5,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,2][0,3,4][1,5,6]]
Generated Nodes:
```

```
[[0,7,2][8,3,4][1,5,6]] - f(n) = 22 + 8 = 30
[[8,7,2][3,0,4][1,5,6]] - Already visited Node!
[[8,7,2][1,3,4][0,5,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[6,0,2][5,7,1][8,3,4]]
Generated Nodes:
[[6,2,0][5,7,1][8,3,4]] - f(n) = 22 + 7 = 29
[[0,6,2][5,7,1][8,3,4]] - Already visited Node!
[[6,7,2][5,0,1][8,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[6,7,2][5,1,0][8,3,4]]
Generated Nodes:
[[6,7,0][5,1,2][8,3,4]] - f(n) = 22 + 8 = 30
[[6,7,2][5,0,1][8,3,4]] - Already visited Node!
[[6,7,2][5,1,4][8,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[6,7,2][5,3,1][8,0,4]]
Generated Nodes:
[[6,7,2][5,0,1][8,3,4]] - Already visited Node!
[[6,7,2][5,3,1][8,4,0]] - f(n) = 22 + 8 = 30
[[6,7,2][5,3,1][0,8,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[4,3,5][1,7,2][0,8,6]]
Generated Nodes:
[[4,3,5][0,7,2][1,8,6]] - Already visited Node!
[[4,3,5][1,7,2][8,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[8,5,0][4,6,2][3,7,1]]
Generated Nodes:
[[8,0,5][4,6,2][3,7,1]] - f(n) = 23 + 7 = 30
[[8,5,2][4,6,0][3,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,5,2][4,6,1][3,7,0]]
Generated Nodes:
[[8,5,2][4,6,0][3,7,1]] - Already visited Node!
[[8,5,2][4,6,1][3,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,2][8,4,6][3,7,1]]
```

```
Generated Nodes:
[[5,0,2][8,4,6][3,7,1]] - Already visited Node!
[[8,5,2][0,4,6][3,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,5,2][3,4,6][0,7,1]]
Generated Nodes:
[[8,5,2][0,4,6][3,7,1]] - Already visited Node!
[[8,5,2][3,4,6][7,0,1]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,5,2][8,7,6][4,3,1]]
Generated Nodes:
[[5,0,2][8,7,6][4,3,1]] - f(n) = 23 + 7 = 30
[[8,5,2][0,7,6][4,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,5,2][7,0,6][4,3,1]]
Generated Nodes:
[[8,0,2][7,5,6][4,3,1]] - f(n) = 23 + 6 = 29
[[8,5,2][7,6,0][4,3,1]] - f(n) = 23 + 8 = 31
[[8,5,2][0,7,6][4,3,1]] - Already visited Node!
[[8,5,2][7,3,6][4,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,2,7][8,1,5][4,3,6]]
Generated Nodes:
[[2,0,7][8,1,5][4,3,6]] - f(n) = 23 + 8 = 31
[[8,2,7][0,1,5][4,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,7][1,0,5][4,3,6]]
Generated Nodes:
[[8,0,7][1,2,5][4,3,6]] - f(n) = 23 + 8 = 31
[[8,2,7][1,5,0][4,3,6]] - f(n) = 23 + 6 = 29
[[8,2,7][0,1,5][4,3,6]] - Already visited Node!
[[8,2,7][1,3,5][4,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,4,0][5,2,1][7,3,6]]
Generated Nodes:
[[8,0,4][5,2,1][7,3,6]] - Already visited Node!
[[8,4,1][5,2,0][7,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,8,4][5,2,1][7,3,6]]
```

```
Generated Nodes:
[[8,0,4][5,2,1][7,3,6]] - Already visited Node!
[[5,8,4][0,2,1][7,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,8,0][1,6,2][7,4,3]]
Generated Nodes:
[[5,0,8][1,6,2][7,4,3]] - f(n) = 23 + 7 = 30
[[5,8,2][1,6,0][7,4,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,8,2][1,6,3][7,4,0]]
Generated Nodes:
[[5,8,2][1,6,0][7,4,3]] - Already visited Node!
[[5,8,2][1,6,3][7,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,4,0][5,2,6][3,7,1]]
Generated Nodes:
[[8,0,4][5,2,6][3,7,1]] - Already visited Node!
[[8,4,6][5,2,0][3,7,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,8,4][5,2,6][3,7,1]]
Generated Nodes:
[[8,0,4][5,2,6][3,7,1]] - Already visited Node!
[[5,8,4][0,2,6][3,7,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,0][5,6,4][3,7,1]]
Generated Nodes:
[[8,0,2][5,6,4][3,7,1]] - f(n) = 23 + 8 = 31
[[8,2,4][5,6,0][3,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,4][5,6,1][3,7,0]]
Generated Nodes:
[[8,2,4][5,6,0][3,7,1]] - Already visited Node!
[[8,2,4][5,6,1][3,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[1,0,2][8,7,6][4,5,3]]
Generated Nodes:
```

```
[[1,2,0][8,7,6][4,5,3]] - f(n) = 24 + 5 = 29
[[0,1,2][8,7,6][4,5,3]] - f(n) = 24 + 7 = 31
[[1,7,2][8,0,6][4,5,3]] - Already visited Node!
Node Chosen for Level 24 - [[1,7,2][0,8,6][4,5,3]]
Generated Nodes:
[[0,7,2][1,8,6][4,5,3]] - f(n) = 24 + 7 = 31
[[1,7,2][8,0,6][4,5,3]] - Already visited Node!
[[1,7,2][4,8,6][0,5,3]] - f(n) = 24 + 5 = 29
Node Chosen for Level 25 - [[1,4,0][5,2,3][7,8,6]]
Generated Nodes:
[[1,0,4][5,2,3][7,8,6]] - Already visited Node!
[[1,4,3][5,2,0][7,8,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[1,2,4][5,8,3][7,6,0]]
Generated Nodes:
[[1,2,4][5,8,0][7,6,3]] - f(n) = 25 + 5 = 30
[[1,2,4][5,8,3][7,0,6]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,3][1,4,0][8,5,6]]
Generated Nodes:
[[7,2,0][1,4,3][8,5,6]] - f(n) = 24 + 7 = 31
[[7,2,3][1,0,4][8,5,6]] - Already visited Node!
[[7,2,3][1,4,6][8,5,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,2,3][0,1,4][8,5,6]]
Generated Nodes:
[[0,2,3][7,1,4][8,5,6]] - f(n) = 24 + 6 = 30
[[7,2,3][1,0,4][8,5,6]] - Already visited Node!
[[7,2,3][8,1,4][0,5,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[0,2,7][8,5,6][4,3,1]]
Generated Nodes:
[[2,0,7][8,5,6][4,3,1]] - f(n) = 25 + 6 = 31
[[8,2,7][0,5,6][4,3,1]] - Already visited Node!
Node Chosen for Level 25 - [[4,5,2][1,0,6][7,8,3]]
Generated Nodes:
```

```
[[4,0,2][1,5,6][7,8,3]] - f(n) = 25 + 4 = 29
[[4,5,2][1,6,0][7,8,3]] - f(n) = 25 + 6 = 31
[[4,5,2][0,1,6][7,8,3]] - Already visited Node!
[[4,5,2][1,8,6][7,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 23 - [[4,7,2][8,5,3][0,1,6]]
Generated Nodes:
[[4,7,2][0,5,3][8,1,6]] - Already visited Node!
[[4,7,2][8,5,3][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,7,2][8,5,1][0,6,3]]
Generated Nodes:
[[4,7,2][0,5,1][8,6,3]] - Already visited Node!
[[4,7,2][8,5,1][6,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,3][7,8,2][1,6,0]]
Generated Nodes:
[[5,4,3][7,8,0][1,6,2]] - f(n) = 23 + 7 = 30
[[5,4,3][7,8,2][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,3][7,8,2][0,1,6]]
Generated Nodes:
[[5,4,3][0,8,2][7,1,6]] - f(n) = 23 + 6 = 29
[[5,4,3][7,8,2][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,8,2][3,5,7][0,1,6]]
Generated Nodes:
[[4,8,2][0,5,7][3,1,6]] - Already visited Node!
[[4,8,2][3,5,7][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,4,0][8,5,7][3,1,6]]
Generated Nodes:
[[2,0,4][8,5,7][3,1,6]] - Already visited Node!
[[2,4,7][8,5,0][3,1,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[5,2,4][0,8,6][1,7,3]]
Generated Nodes:
```

```
[[0,2,4][5,8,6][1,7,3]] - f(n) = 24 + 6 = 30
[[5,2,4][8,0,6][1,7,3]] - Already visited Node!
[[5,2,4][1,8,6][0,7,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,2][1,4,6][5,8,3]]
Generated Nodes:
[[7,2,0][1,4,6][5,8,3]] - f(n) = 24 + 5 = 29
[[0,7,2][1,4,6][5,8,3]] - Already visited Node!
[[7,4,2][1,0,6][5,8,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[8,2,4][0,1,6][5,7,3]]
Generated Nodes:
[[0,2,4][8,1,6][5,7,3]] - f(n) = 24 + 6 = 30
[[8,2,4][1,0,6][5,7,3]] - f(n) = 24 + 6 = 30
[[8,2,4][5,1,6][0,7,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][0,8,6][1,7,3]]
Generated Nodes:
[[0,2,4][5,8,6][1,7,3]] - f(n) = 24 + 6 = 30
[[5,2,4][8,0,6][1,7,3]] - Already visited Node!
[[5,2,4][1,8,6][0,7,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,4,0][5,6,2][7,8,3]]
Generated Nodes:
[[1,0,4][5,6,2][7,8,3]] - f(n) = 25 + 5 = 30
[[1,4,2][5,6,0][7,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,4,2][5,6,3][7,8,0]]
Generated Nodes:
[[1,4,2][5,6,0][7,8,3]] - Already visited Node!
[[1,4,2][5,6,3][7,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,4,2][5,8,6][7,3,0]]
Generated Nodes:
[[1,4,2][5,8,0][7,3,6]] - f(n) = 25 + 6 = 31
[[1,4,2][5,8,6][7,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,1][4,6,5][8,0,3]]
Generated Nodes:
```

```
[[7,2,1][4,0,5][8,6,3]] - Already visited Node!
[[7,2,1][4,6,5][8,3,0]] - f(n) = 24 + 6 = 30
[[7,2,1][4,6,5][0,8,3]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[4,7,8][3,5,2][0,1,6]]
Generated Nodes:
[[4,7,8][0,5,2][3,1,6]] - Already visited Node!
[[4,7,8][3,5,2][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,2,6][5,0,7][8,3,1]]
Generated Nodes:
[[4,0,6][5,2,7][8,3,1]] - f(n) = 23 + 8 = 31
[[4,2,6][5,7,0][8,3,1]] - Already visited Node!
[[4,2,6][0,5,7][8,3,1]] - f(n) = 23 + 6 = 29
[[4,2,6][5,3,7][8,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,2,6][5,7,1][8,3,0]]
Generated Nodes:
[[4,2,6][5,7,0][8,3,1]] - Already visited Node!
[[4,2,6][5,7,1][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,2][8,1,6][3,5,4]]
Generated Nodes:
[[7,0,2][8,1,6][3,5,4]] - Already visited Node!
[[8,7,2][0,1,6][3,5,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,1,2][8,0,6][3,5,4]]
Generated Nodes:
[[7,0,2][8,1,6][3,5,4]] - Already visited Node!
[[7,1,2][8,6,0][3,5,4]] - f(n) = 23 + 8 = 31
[[7,1,2][0,8,6][3,5,4]] - f(n) = 23 + 7 = 30
[[7,1,2][8,5,6][3,0,4]] - f(n) =
                                  23 + 6 = 29
Node Chosen for Level 23 - [[8,2,6][3,0,7][4,5,1]]
Generated Nodes:
[[8,0,6][3,2,7][4,5,1]] - f(n) = 23 + 8 = 31
[[8,2,6][3,7,0][4,5,1]] - Already visited Node!
[[8,2,6][0,3,7][4,5,1]] - f(n) = 23 + 7 = 30
[[8,2,6][3,5,7][4,0,1]] - f(n) = 23 + 6 = 29
```

```
Node Chosen for Level 23 - [[8,2,6][3,7,1][4,5,0]]
Generated Nodes:
[[8,2,6][3,7,0][4,5,1]] - Already visited Node!
[[8,2,6][3,7,1][4,0,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[2,8,4][7,5,6][3,0,1]]
Generated Nodes:
[[2,8,4][7,0,6][3,5,1]] - f(n) = 24 + 7 = 31
[[2,8,4][7,5,6][3,1,0]] - f(n) = 24 + 6 = 30
[[2,8,4][7,5,6][0,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,2][7,1,3][4,8,6]]
Generated Nodes:
[[5,0,2][7,1,3][4,8,6]] - f(n) = 23 + 7 = 30
[[7,5,2][0,1,3][4,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][1,0,3][4,8,6]]
Generated Nodes:
[[7,0,2][1,5,3][4,8,6]] - f(n) = 23 + 6 = 29
[[7,5,2][1,3,0][4,8,6]] - Already visited Node!
[[7,5,2][0,1,3][4,8,6]] - Already visited Node!
[[7,5,2][1,8,3][4,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[5,6,0][7,2,1][3,8,4]]
Generated Nodes:
[[5,0,6][7,2,1][3,8,4]] - Already visited Node!
[[5,6,1][7,2,0][3,8,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,6][7,2,1][3,8,4]]
Generated Nodes:
[[5,0,6][7,2,1][3,8,4]] - Already visited Node!
[[7,5,6][0,2,1][3,8,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,2][8,4,6][3,1,5]]
Generated Nodes:
[[7,0,2][8,4,6][3,1,5]] - Already visited Node!
[[8,7,2][0,4,6][3,1,5]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[7,4,2][8,0,6][3,1,5]]
Generated Nodes:
[[7,0,2][8,4,6][3,1,5]] - Already visited Node!
[[7,4,2][8,6,0][3,1,5]] - f(n) = 23 + 8 = 31
[[7,4,2][0,8,6][3,1,5]] - f(n) = 23 + 7 = 30
[[7,4,2][8,1,6][3,0,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,0][4,6,2][5,3,1]]
Generated Nodes:
[[8,0,7][4,6,2][5,3,1]] - f(n) = 23 + 7 = 30
[[8,7,2][4,6,0][5,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,2][4,6,1][5,3,0]]
Generated Nodes:
[[8,7,2][4,6,0][5,3,1]] - Already visited Node!
[[8,7,2][4,6,1][5,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,1,0][8,2,6][3,4,5]]
Generated Nodes:
[[7,0,1][8,2,6][3,4,5]] - Already visited Node!
[[7,1,6][8,2,0][3,4,5]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,7,1][8,2,6][3,4,5]]
Generated Nodes:
[[7,0,1][8,2,6][3,4,5]] - Already visited Node!
[[8,7,1][0,2,6][3,4,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,6,5][7,3,2][4,8,1]]
Generated Nodes:
[[6,0,5][7,3,2][4,8,1]] - f(n) = 23 + 7 = 30
[[7,6,5][0,3,2][4,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][7,0,3][1,4,8]]
Generated Nodes:
[[5,0,6][7,2,3][1,4,8]] - f(n) = 23 + 8 = 31
[[5,2,6][7,3,0][1,4,8]] - Already visited Node!
[[5,2,6][0,7,3][1,4,8]] - f(n) = 23 + 7 = 30
```

```
[[5,2,6][7,4,3][1,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,6][7,3,8][1,4,0]]
Generated Nodes:
[[5,2,6][7,3,0][1,4,8]] - Already visited Node!
[[5,2,6][7,3,8][1,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,0][1,3,2][4,8,6]]
Generated Nodes:
[[7,0,5][1,3,2][4,8,6]] - f(n) = 23 + 7 = 30
[[7,5,2][1,3,0][4,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][1,0,3][4,8,6]]
Generated Nodes:
[[7,0,2][1,5,3][4,8,6]] - f(n) = 23 + 6 = 29
[[7,5,2][1,3,0][4,8,6]] - Already visited Node! [[7,5,2][0,1,3][4,8,6]] - Already visited Node!
[[7,5,2][1,8,3][4,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[5,2,6][7,0,4][3,1,8]]
Generated Nodes:
[[5,0,6][7,2,4][3,1,8]] - f(n) = 23 + 8 = 31
[[5,2,6][7,4,0][3,1,8]] - Already visited Node!
[[5,2,6][0,7,4][3,1,8]] - f(n) = 23 + 7 = 30
[[5,2,6][7,1,4][3,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,2,6][5,0,7][8,3,1]]
Generated Nodes:
[[4,0,6][5,2,7][8,3,1]] - f(n) = 23 + 8 = 31
[[4,2,6][5,7,0][8,3,1]] - Already visited Node!
[[4,2,6][0,5,7][8,3,1]] - f(n) = 23 + 6 = 29
[[4,2,6][5,3,7][8,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,2,6][5,7,1][8,3,0]]
Generated Nodes:
[[4,2,6][5,7,0][8,3,1]] - Already visited Node!
[[4,2,6][5,7,1][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,4,0][3,6,5][2,8,1]]
```

```
Generated Nodes:
[[7,0,4][3,6,5][2,8,1]] - f(n) = 23 + 7 = 30
[[7,4,5][3,6,0][2,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][3,6,1][2,8,0]]
Generated Nodes:
[[7,4,5][3,6,0][2,8,1]] - Already visited Node!
[[7,4,5][3,6,1][2,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[4,2,0][7,6,5][8,3,1]]
Generated Nodes:
[[4,0,2][7,6,5][8,3,1]] - f(n) = 23 + 8 = 31
[[4,2,5][7,6,0][8,3,1]] - Already visited Node!
Node Chosen for Level 23 - [[4,2,5][7,6,1][8,3,0]]
Generated Nodes:
[[4,2,5][7,6,0][8,3,1]] - Already visited Node!
[[4,2,5][7,6,1][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,6][7,1,3][8,4,0]]
Generated Nodes:
[[5,2,6][7,1,0][8,4,3]] - Already visited Node!
[[5,2,6][7,1,3][8,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,1,0][7,2,4][3,8,6]]
Generated Nodes:
[[5,0,1][7,2,4][3,8,6]] - Already visited Node!
[[5,1,4][7,2,0][3,8,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,1][7,2,4][3,8,6]]
Generated Nodes:
[[5,0,1][7,2,4][3,8,6]] - Already visited Node!
[[7,5,1][0,2,4][3,8,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,6][7,1,3][8,4,0]]
Generated Nodes:
[[5,2,6][7,1,0][8,4,3]] - Already visited Node!
```

```
[[5,2,6][7,1,3][8,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[8,4,2][7,5,6][3,0,1]]
Generated Nodes:
[[8,4,2][7,0,6][3,5,1]] - f(n) = 24 + 7 = 31
[[8,4,2][7,5,6][3,1,0]] - f(n) = 24 + 6 = 30
[[8,4,2][7,5,6][0,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,4][7,5,1][3,0,6]]
Generated Nodes:
[[8,2,4][7,0,1][3,5,6]] - f(n) = 24 + 7 = 31
[[8,2,4][7,5,1][3,6,0]] - f(n) = 24 + 6 = 30
[[8,2,4][7,5,1][0,3,6]] - Already visited Node!
Node Chosen for Level 25 - [[1,3,2][5,0,6][7,4,8]]
Generated Nodes:
[[1,0,2][5,3,6][7,4,8]] - f(n) = 25 + 5 = 30
[[1,3,2][5,6,0][7,4,8]] - f(n) = 25 + 6 = 31
[[1,3,2][0,5,6][7,4,8]] - f(n) = 25 + 4 = 29
[[1,3,2][5,4,6][7,0,8]] - Already visited Node!
Node Chosen for Level 25 - [[4,2,6][5,0,3][7,8,1]]
Generated Nodes:
[[4,0,6][5,2,3][7,8,1]] - f(n) = 25 + 6 = 31
[[4,2,6][5,3,0][7,8,1]] - Already visited Node!
[[4,2,6][0,5,3][7,8,1]] - f(n) = 25 + 4 = 29
[[4,2,6][5,8,3][7,0,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[4,2,6][5,3,1][7,8,0]]
Generated Nodes:
[[4,2,6][5,3,0][7,8,1]] - Already visited Node!
[[4,2,6][5,3,1][7,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,2,6][3,4,1][7,8,0]]
Generated Nodes:
[[5,2,6][3,4,0][7,8,1]] - Already visited Node!
[[5,2,6][3,4,1][7,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 23 - [[4,5,0][7,6,2][3,8,1]]
```

```
Generated Nodes:
[[4,0,5][7,6,2][3,8,1]] - f(n) = 23 + 7 = 30
[[4,5,2][7,6,0][3,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[4,5,2][7,6,1][3,8,0]]
Generated Nodes:
[[4,5,2][7,6,0][3,8,1]] - Already visited Node!
[[4,5,2][7,6,1][3,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[5,1,0][7,2,6][8,3,4]]
Generated Nodes:
[[5,0,1][7,2,6][8,3,4]] - Already visited Node!
[[5,1,6][7,2,0][8,3,4]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,5,1][7,2,6][8,3,4]]
Generated Nodes:
[[5,0,1][7,2,6][8,3,4]] - Already visited Node!
[[7,5,1][0,2,6][8,3,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 25 - [[1,7,0][4,6,2][5,8,3]]
Generated Nodes:
[[1,0,7][4,6,2][5,8,3]] - f(n) = 25 + 5 = 30
[[1,7,2][4,6,0][5,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,7,2][4,6,3][5,8,0]]
Generated Nodes:
[[1,7,2][4,6,0][5,8,3]] - Already visited Node!
[[1,7,2][4,6,3][5,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,7,2][4,8,6][5,3,0]]
Generated Nodes:
[[1,7,2][4,8,0][5,3,6]] - f(n) = 25 + 6 = 31
[[1,7,2][4,8,6][5,0,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,7,2][4,8,6][0,5,3]]
Generated Nodes:
[[1,7,2][0,8,6][4,5,3]] - Already visited Node!
```

```
[[1,7,2][4,8,6][5,0,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,7,5][2,0,6][4,8,3]]
Generated Nodes:
[[1,0,5][2,7,6][4,8,3]] - f(n) = 25 + 5 = 30
[[1,7,5][2,6,0][4,8,3]] - f(n) = 25 + 6 = 31
[[1,7,5][0,2,6][4,8,3]] - Already visited Node!
[[1,7,5][2,8,6][4,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 26 - [[4,0,2][1,5,6][7,8,3]]
Generated Nodes:
[[4,2,0][1,5,6][7,8,3]] - f(n) = 26 + 3 = 29
[[0,4,2][1,5,6][7,8,3]] - Already visited Node!
[[4,5,2][1,0,6][7,8,3]] - Already visited Node!
Node Chosen for Level 27 - [[0,2,3][7,5,6][4,8,1]]
Generated Nodes:
[[2,0,3][7,5,6][4,8,1]] - f(n) = 27 + 4 = 31
[[7,2,3][0,5,6][4,8,1]] - Already visited Node!
Node Chosen for Level 25 - [[8,2,6][4,5,1][3,7,0]]
Generated Nodes:
[[8,2,6][4,5,0][3,7,1]] - Already visited Node!
[[8,2,6][4,5,1][3,0,7]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,6,0][4,2,1][7,8,3]]
Generated Nodes:
[[5,0,6][4,2,1][7,8,3]] - Already visited Node!
[[5,6,1][4,2,0][7,8,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[0,5,6][4,2,1][7,8,3]]
Generated Nodes:
[[5,0,6][4,2,1][7,8,3]] - Already visited Node!
[[4,5,6][0,2,1][7,8,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[4,2,6][7,5,1][3,8,0]]
Generated Nodes:
[[4,2,6][7,5,0][3,8,1]] - Already visited Node!
```

```
[[4,2,6][7,5,1][3,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 22 - [[4,0,7][5,6,2][8,3,1]]
Generated Nodes:
[[4,7,0][5,6,2][8,3,1]] - Already visited Node!
[[0,4,7][5,6,2][8,3,1]] - f(n) = 22 + 8 = 30
[[4,6,7][5,0,2][8,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,7,2][5,6,1][8,0,3]]
Generated Nodes:
[[4,7,2][5,0,1][8,6,3]] - f(n) = 22 + 8 = 30
[[4,7,2][5,6,1][8,3,0]] - Already visited Node!
[[4,7,2][5,6,1][0,8,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,6,1][8,2,0][3,5,4]]
Generated Nodes:
[[7,6,0][8,2,1][3,5,4]] - Already visited Node!
[[7,6,1][8,0,2][3,5,4]] - f(n) = 22 + 8 = 30
[[7,6,1][8,2,4][3,5,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,6][0,2,1][3,5,4]]
Generated Nodes:
[[0,7,6][8,2,1][3,5,4]] - Already visited Node!
[[8,7,6][2,0,1][3,5,4]] - f(n) = 22 + 8 = 30
[[8,7,6][3,2,1][0,5,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,0,7][3,6,2][4,5,1]]
Generated Nodes:
[[8,7,0][3,6,2][4,5,1]] - Already visited Node!
[[0,8,7][3,6,2][4,5,1]] - f(n) = 22 + 8 = 30
[[8,6,7][3,0,2][4,5,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,2][3,6,1][4,0,5]]
Generated Nodes:
[[8,7,2][3,0,1][4,6,5]] - f(n) = 22 + 8 = 30
[[8,7,2][3,6,1][4,5,0]] - Already visited Node!
[[8,7,2][3,6,1][0,4,5]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,1,4][8,2,0][3,5,6]]
```

```
Generated Nodes:
[[7,1,0][8,2,4][3,5,6]] - Already visited Node!
[[7,1,4][8,0,2][3,5,6]] - f(n) = 22 + 8 = 30
[[7,1,4][8,2,6][3,5,0]] - f(n) =
                                 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,1][0,2,4][3,5,6]]
Generated Nodes:
[[0,7,1][8,2,4][3,5,6]] - Already visited Node!
[[8,7,1][2,0,4][3,5,6]] - f(n) = 22 + 8 = 30
[[8,7,1][3,2,4][0,5,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 24 - [[5,7,4][0,2,6][1,8,3]]
Generated Nodes:
[[0,7,4][5,2,6][1,8,3]] - Already visited Node!
[[5,7,4][2,0,6][1,8,3]] - f(n) = 24 + 6 = 30
[[5,7,4][1,2,6][0,8,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,4][0,8,6][5,1,3]]
Generated Nodes:
[[0,2,4][7,8,6][5,1,3]] - f(n) = 24 + 6 = 30
[[7,2,4][8,0,6][5,1,3]] - Already visited Node!
[[7,2,4][5,8,6][0,1,3]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,8][0,2,5][1,6,4]]
Generated Nodes:
[[0,7,8][3,2,5][1,6,4]] - Already visited Node!
[[3,7,8][2,0,5][1,6,4]] - f(n) = 22 + 8 = 30
[[3,7,8][1,2,5][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[0,2,6][7,3,5][1,4,8]]
Generated Nodes:
[[2,0,6][7,3,5][1,4,8]] - f(n) = 23 + 8 = 31
[[7,2,6][0,3,5][1,4,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][1,3,5][0,4,8]]
Generated Nodes:
[[7,2,6][0,3,5][1,4,8]] - Already visited Node!
[[7,2,6][1,3,5][4,0,8]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[7,2,6][3,4,5][0,1,8]]
Generated Nodes:
[[7,2,6][0,4,5][3,1,8]] - f(n) = 23 + 7 = 30
[[7,2,6][3,4,5][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,6][7,1,5][8,4,3]]
Generated Nodes:
[[2,0,6][7,1,5][8,4,3]] - f(n) = 23 + 8 = 31
[[7,2,6][0,1,5][8,4,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][8,1,5][0,4,3]]
Generated Nodes:
[[7,2,6][0,1,5][8,4,3]] - Already visited Node!
[[7,2,6][8,1,5][4,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,6][1,4,5][8,3,0]]
Generated Nodes:
[[7,2,6][1,4,0][8,3,5]] - f(n) = 23 + 7 = 30
[[7,2,6][1,4,5][8,0,3]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,2][7,4,3][8,1,6]]
Generated Nodes:
[[5,2,0][7,4,3][8,1,6]] - f(n) = 22 + 7 = 29
[[0,5,2][7,4,3][8,1,6]] - Already visited Node!
[[5,4,2][7,0,3][8,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][8,4,3][1,0,6]]
Generated Nodes:
[[7,5,2][8,0,3][1,4,6]] - f(n) = 22 + 8 = 30
[[7,5,2][8,4,3][1,6,0]] - f(n) = 22 + 8 = 30
[[7,5,2][8,4,3][0,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,6,8][7,2,0][3,4,1]]
Generated Nodes:
[[5,6,0][7,2,8][3,4,1]] - Already visited Node!
[[5,6,8][7,0,2][3,4,1]] - Already visited Node!
[[5,6,8][7,2,1][3,4,0]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[7,5,6][0,2,8][3,4,1]]
Generated Nodes:
[[0,5,6][7,2,8][3,4,1]] - Already visited Node!
[[7,5,6][2,0,8][3,4,1]] - f(n) = 22 + 8 = 30
[[7,5,6][3,2,8][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][3,1,0][4,6,8]]
Generated Nodes:
[[7,5,0][3,1,2][4,6,8]] - f(n) = 22 + 8 = 30
[[7,5,2][3,0,1][4,6,8]] - Already visited Node!
[[7,5,2][3,1,8][4,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][0,3,1][4,6,8]]
Generated Nodes:
[[0,5,2][7,3,1][4,6,8]] - f(n) = 22 + 8 = 30
[[7,5,2][3,0,1][4,6,8]] - Already visited Node!
[[7,5,2][4,3,1][0,6,8]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,2][0,6,1][3,4,8]]
Generated Nodes:
[[0,5,2][7,6,1][3,4,8]] - f(n) = 22 + 8 = 30
[[7,5,2][6,0,1][3,4,8]] - f(n) = 22 + 8 = 30
[[7,5,2][3,6,1][0,4,8]] - Already visited Node!
Node Chosen for Level 22 - [[5,6,4][7,2,0][8,3,1]]
Generated Nodes:
[[5,6,0][7,2,4][8,3,1]] - Already visited Node!
[[5,6,4][7,0,2][8,3,1]] - Already visited Node!
[[5,6,4][7,2,1][8,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,6][0,2,4][8,3,1]]
Generated Nodes:
[[0,5,6][7,2,4][8,3,1]] - Already visited Node!
[[7,5,6][2,0,4][8,3,1]] - f(n) = 22 + 8 = 30
[[7,5,6][8,2,4][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 24 - [[7,2,6][0,5,1][3,4,8]]
Generated Nodes:
```

```
[[0,2,6][7,5,1][3,4,8]] - f(n) = 24 + 6 = 30
[[7,2,6][5,0,1][3,4,8]] - f(n) = 24 + 7 = 31
[[7,2,6][3,5,1][0,4,8]] - Already visited Node!
Node Chosen for Level 22 - [[2,6,5][7,8,0][3,4,1]]
Generated Nodes:
[[2,6,0][7,8,5][3,4,1]] - Already visited Node!
[[2,6,5][7,0,8][3,4,1]] - f(n) = 22 + 8 = 30
[[2,6,5][7,8,1][3,4,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,8,6][0,7,5][3,4,1]]
Generated Nodes:
[[0,8,6][2,7,5][3,4,1]] - f(n) = 22 + 8 = 30
[[2,8,6][7,0,5][3,4,1]] - Already visited Node!
[[2,8,6][3,7,5][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,8,6][7,4,5][3,0,1]]
Generated Nodes:
[[2,8,6][7,0,5][3,4,1]] - Already visited Node!
[[2,8,6][7,4,5][3,1,0]] - f(n) = 22 + 8 = 30
[[2,8,6][7,4,5][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,1,5][7,8,0][3,6,4]]
Generated Nodes:
[[2,1,0][7,8,5][3,6,4]] - Already visited Node!
[[2,1,5][7,0,8][3,6,4]] - f(n) = 22 + 8 = 30
[[2,1,5][7,8,4][3,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,8,1][0,7,5][3,6,4]]
Generated Nodes:
[[0,8,1][2,7,5][3,6,4]] - f(n) = 22 + 8 = 30
[[2,8,1][7,0,5][3,6,4]] - Already visited Node!
[[2,8,1][3,7,5][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,8,1][7,6,5][3,0,4]]
Generated Nodes:
[[2,8,1][7,0,5][3,6,4]] - Already visited Node!
[[2,8,1][7,6,5][3,4,0]] - f(n) = 22 + 8 = 30
[[2,8,1][7,6,5][0,3,4]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[2,4,5][7,1,0][8,3,6]]
Generated Nodes:
[[2,4,0][7,1,5][8,3,6]] - Already visited Node!
[[2,4,5][7,0,1][8,3,6]] - f(n) = 22 + 8 = 30
[[2,4,5][7,1,6][8,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,1,4][0,7,5][8,3,6]]
Generated Nodes:
[[0,1,4][2,7,5][8,3,6]] - f(n) = 22 + 8 = 30
[[2,1,4][7,0,5][8,3,6]] - Already visited Node!
[[2,1,4][8,7,5][0,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,1,4][7,3,5][8,0,6]]
Generated Nodes:
[[2,1,4][7,0,5][8,3,6]] - Already visited Node!
[[2,1,4][7,3,5][8,6,0]] - f(n) = 22 + 8 = 30
[[2,1,4][7,3,5][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[0,4,2][8,7,6][3,5,1]]
Generated Nodes:
[[4,0,2][8,7,6][3,5,1]] - Already visited Node!
[[8,4,2][0,7,6][3,5,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,7,2][3,8,6][0,5,1]]
Generated Nodes:
[[4,7,2][0,8,6][3,5,1]] - Already visited Node!
[[4,7,2][3,8,6][5,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 22 - [[4,0,5][6,7,2][8,3,1]]
Generated Nodes:
[[4,5,0][6,7,2][8,3,1]] - f(n) = 22 + 8 = 30
[[0,4,5][6,7,2][8,3,1]] - f(n) = 22 + 8 = 30
[[4,7,5][6,0,2][8,3,1]] - Already visited Node!
Node Chosen for Level 22 - [[4,7,5][6,2,0][8,3,1]]
Generated Nodes:
[[4,7,0][6,2,5][8,3,1]] - f(n) = 22 + 8 = 30
```

[[4,7,5][6,0,2][8,3,1]] - Already visited Node!

```
[[4,7,5][6,2,1][8,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,7,5][6,3,2][8,0,1]]
Generated Nodes:
[[4,7,5][6,0,2][8,3,1]] - Already visited Node!
[[4,7,5][6,3,2][8,1,0]] - f(n) = 22 + 8 = 30
[[4,7,5][6,3,2][0,8,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,7,5][8,6,2][3,0,1]]
Generated Nodes:
[[4,7,5][8,0,2][3,6,1]] - f(n) = 22 + 8 = 30
[[4,7,5][8,6,2][3,1,0]] - f(n) = 22 + 8 = 30
[[4,7,5][8,6,2][0,3,1]] - Already visited Node!
Node Chosen for Level 22 - [[6,0,5][7,4,2][8,3,1]]
Generated Nodes:
[[6,5,0][7,4,2][8,3,1]] - f(n) = 22 + 8 = 30
[[0,6,5][7,4,2][8,3,1]] - Already visited Node!
[[6,4,5][7,0,2][8,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,2][7,4,1][8,6,3]]
Generated Nodes:
[[5,2,0][7,4,1][8,6,3]] - f(n) = 22 + 7 = 29
[[0,5,2][7,4,1][8,6,3]] - Already visited Node!
[[5,4,2][7,0,1][8,6,3]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][8,4,1][6,0,3]]
Generated Nodes:
[[7,5,2][8,0,1][6,4,3]] - f(n) = 22 + 8 = 30
[[7,5,2][8,4,1][6,3,0]] - f(n) = 22 + 8 = 30
[[7,5,2][8,4,1][0,6,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][5,1,4][8,3,0]]
Generated Nodes:
[[7,2,6][5,1,0][8,3,4]] - Already visited Node!
[[7,2,6][5,1,4][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,6][5,3,1][8,4,0]]
Generated Nodes:
```

```
[[7,2,6][5,3,0][8,4,1]] - f(n) = 23 + 7 = 30
[[7,2,6][5,3,1][8,0,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,4][7,3,2][8,1,6]]
Generated Nodes:
[[5,4,0][7,3,2][8,1,6]] - Already visited Node!
[[0,5,4][7,3,2][8,1,6]] - f(n) = 22 + 8 = 30
[[5,3,4][7,0,2][8,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,2][7,4,3][8,1,6]]
Generated Nodes:
[[5,2,0][7,4,3][8,1,6]] - f(n) = 22 + 7 = 29
[[0,5,2][7,4,3][8,1,6]] - Already visited Node!
[[5,4,2][7,0,3][8,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,2][0,7,3][8,1,6]]
Generated Nodes:
[[0,4,2][5,7,3][8,1,6]] - f(n) = 22 + 8 = 30
[[5,4,2][7,0,3][8,1,6]] - Already visited Node!
[[5,4,2][8,7,3][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,2][7,1,3][8,0,6]]
Generated Nodes:
[[5,4,2][7,0,3][8,1,6]] - Already visited Node!
[[5,4,2][7,1,3][8,6,0]] - f(n) = 22 + 8 = 30
[[5,4,2][7,1,3][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,4,8][3,2,0][1,7,6]]
Generated Nodes:
[[5,4,0][3,2,8][1,7,6]] - Already visited Node!
[[5,4,8][3,0,2][1,7,6]] - Already visited Node!
[[5,4,8][3,2,6][1,7,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,5,4][0,2,8][1,7,6]]
Generated Nodes:
[[0,5,4][3,2,8][1,7,6]] - Already visited Node!
[[3,5,4][2,0,8][1,7,6]] - f(n) = 22 + 8 = 30
[[3,5,4][1,2,8][0,7,6]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[7,5,2][0,1,4][3,6,8]]
Generated Nodes:
[[0,5,2][7,1,4][3,6,8]] - Already visited Node!
[[7,5,2][1,0,4][3,6,8]] - f(n) = 22 + 8 = 30
[[7,5,2][3,1,4][0,6,8]] - Already visited Node!
Node Chosen for Level 22 - [[5,1,2][7,4,0][3,6,8]]
Generated Nodes:
[[5,1,0][7,4,2][3,6,8]] - f(n) = 22 + 8 = 30
[[5,1,2][7,0,4][3,6,8]] - Already visited Node!
[[5,1,2][7,4,8][3,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,1,2][0,7,4][3,6,8]]
Generated Nodes:
[[0,1,2][5,7,4][3,6,8]] - f(n) = 22 + 8 = 30
[[5,1,2][7,0,4][3,6,8]] - Already visited Node!
[[5,1,2][3,7,4][0,6,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,1,2][7,6,4][3,0,8]]
Generated Nodes:
[[5,1,2][7,0,4][3,6,8]] - Already visited Node!
[[5,1,2][7,6,4][3,8,0]] - f(n) = 22 + 7 = 29
[[5,1,2][7,6,4][0,3,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,1][7,2,0][3,6,8]]
Generated Nodes:
[[5,4,0][7,2,1][3,6,8]] - Already visited Node!
[[5,4,1][7,0,2][3,6,8]] - f(n) = 22 + 8 = 30
[[5,4,1][7,2,8][3,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,4][0,2,1][3,6,8]]
Generated Nodes:
[[0,5,4][7,2,1][3,6,8]] - Already visited Node!
[[7,5,4][2,0,1][3,6,8]] - f(n) = 22 + 8 = 30
[[7,5,4][3,2,1][0,6,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,0,5][1,7,2][8,4,6]]
Generated Nodes:
```

```
[[3,5,0][1,7,2][8,4,6]] - f(n) = 22 + 8 = 30
[[0,3,5][1,7,2][8,4,6]] - f(n) = 22 + 8 = 30
[[3,7,5][1,0,2][8,4,6]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,5][1,2,0][8,4,6]]
Generated Nodes:
[[3,7,0][1,2,5][8,4,6]] - f(n) = 22 + 8 = 30
[[3,7,5][1,0,2][8,4,6]] - Already visited Node!
[[3,7,5][1,2,6][8,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,7,5][0,1,2][8,4,6]]
Generated Nodes:
[[0,7,5][3,1,2][8,4,6]] - f(n) = 22 + 8 = 30
[[3,7,5][1,0,2][8,4,6]] - Already visited Node!
[[3,7,5][8,1,2][0,4,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,7,5][1,4,0][8,6,2]]
Generated Nodes:
[[3,7,0][1,4,5][8,6,2]] - f(n) = 22 + 8 = 30
[[3,7,5][1,0,4][8,6,2]] - f(n) = 22 + 8 = 30
[[3,7,5][1,4,2][8,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,2][1,3,4][8,7,6]]
Generated Nodes:
[[5,2,0][1,3,4][8,7,6]] - f(n) = 22 + 7 = 29
[[0,5,2][1,3,4][8,7,6]] - f(n) = 22 + 8 = 30
[[5,3,2][1,0,4][8,7,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,3,2][1,4,0][8,7,6]]
Generated Nodes:
[[5,3,0][1,4,2][8,7,6]] - f(n) = 22 + 8 = 30
[[5,3,2][1,0,4][8,7,6]] - Already visited Node!
[[5,3,2][1,4,6][8,7,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,3,2][0,1,4][8,7,6]]
Generated Nodes:
[[0,3,2][5,1,4][8,7,6]] - f(n) = 22 + 8 = 30
[[5,3,2][1,0,4][8,7,6]] - Already visited Node!
[[5,3,2][8,1,4][0,7,6]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[5,3,2][1,7,0][8,6,4]]
Generated Nodes:
[[5,3,0][1,7,2][8,6,4]] - f(n) = 22 + 8 = 30
[[5,3,2][1,0,7][8,6,4]] - f(n) = 22 + 8 = 30
[[5,3,2][1,7,4][8,6,0]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][5,4,1][8,3,6]]
Generated Nodes:
[[7,0,2][5,4,1][8,3,6]] - f(n) = 23 + 8 = 31
[[7,2,1][5,4,0][8,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,1][5,3,4][8,6,0]]
Generated Nodes:
[[7,2,1][5,3,0][8,6,4]] - f(n) = 23 + 7 = 30
[[7,2,1][5,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,2][8,4,7][3,1,6]]
Generated Nodes:
[[5,2,0][8,4,7][3,1,6]] - f(n) = 22 + 7 = 29
[[0,5,2][8,4,7][3,1,6]] - Already visited Node!
[[5,4,2][8,0,7][3,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,5,2][3,4,7][1,0,6]]
Generated Nodes:
[[8,5,2][3,0,7][1,4,6]] - Already visited Node!
[[8,5,2][3,4,7][1,6,0]] - f(n) = 22 + 8 = 30
[[8,5,2][3,4,7][0,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,0,7][2,8,5][3,1,6]]
Generated Nodes:
[[4,7,0][2,8,5][3,1,6]] - f(n) = 22 + 8 = 30
[[0,4,7][2,8,5][3,1,6]] - f(n) = 22 + 8 = 30
[[4,8,7][2,0,5][3,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,8,7][2,1,5][3,0,6]]
Generated Nodes:
[[4,8,7][2,0,5][3,1,6]] - Already visited Node!
```

[[4,8,7][2,1,5][3,6,0]] - f(n) = 22 + 8 = 30

```
[[4,8,7][2,1,5][0,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,8,7][3,2,5][1,0,6]]
Generated Nodes:
[[4,8,7][3,0,5][1,2,6]] - f(n) = 22 + 8 = 30
[[4,8,7][3,2,5][1,6,0]] - f(n) = 22 + 8 = 30
[[4,8,7][3,2,5][0,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][3,4,1][6,0,2]]
Generated Nodes:
[[8,7,5][3,0,1][6,4,2]] - Already visited Node!
[[8,7,5][3,4,1][6,2,0]] - f(n) = 22 + 8 = 30
[[8,7,5][3,4,1][0,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,6][0,8,4][3,2,1]]
Generated Nodes:
[[0,5,6][7,8,4][3,2,1]] - f(n) = 22 + 8 = 30
[[7,5,6][8,0,4][3,2,1]] - Already visited Node!
[[7,5,6][3,8,4][0,2,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,6][8,2,4][3,0,1]]
Generated Nodes:
[[7,5,6][8,0,4][3,2,1]] - Already visited Node!
[[7,5,6][8,2,4][3,1,0]] - f(n) = 22 + 8 = 30
[[7,5,6][8,2,4][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,6][8,4,1][3,0,2]]
Generated Nodes:
[[7,5,6][8,0,1][3,4,2]] - f(n) = 22 + 8 = 30
[[7,5,6][8,4,1][3,2,0]] - Already visited Node!
[[7,5,6][8,4,1][0,3,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,4][2,6,5][8,3,1]]
Generated Nodes:
[[7,4,0][2,6,5][8,3,1]] - Already visited Node!
[[0,7,4][2,6,5][8,3,1]] - f(n) = 22 + 8 = 30
[[7,6,4][2,0,5][8,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,4,5][2,6,1][8,0,3]]
```

```
Generated Nodes:
[[7,4,5][2,0,1][8,6,3]] - f(n) = 22 + 8 = 30
[[7,4,5][2,6,1][8,3,0]] - Already visited Node!
[[7,4,5][2,6,1][0,8,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,4,1][5,7,0][8,3,6]]
Generated Nodes:
[[2,4,0][5,7,1][8,3,6]] - Already visited Node!
[[2,4,1][5,0,7][8,3,6]] - f(n) = 22 + 8 = 30
[[2,4,1][5,7,6][8,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,7,4][5,1,0][8,3,6]]
Generated Nodes:
[[2,7,0][5,1,4][8,3,6]] - f(n) = 22 + 8 = 30
[[2,7,4][5,0,1][8,3,6]] - Already visited Node!
[[2,7,4][5,1,6][8,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,7,4][5,3,1][8,0,6]]
Generated Nodes:
[[2,7,4][5,0,1][8,3,6]] - Already visited Node!
[[2,7,4][5,3,1][8,6,0]] - f(n) = 22 + 8 = 30
[[2,7,4][5,3,1][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[1,7,2][3,8,5][0,6,4]]
Generated Nodes:
[[1,7,2][0,8,5][3,6,4]] - Already visited Node!
[[1,7,2][3,8,5][6,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,7,2][8,6,5][3,4,0]]
Generated Nodes:
[[1,7,2][8,6,0][3,4,5]] - f(n) = 23 + 7 = 30
[[1,7,2][8,6,5][3,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,2][8,6,5][0,3,4]]
Generated Nodes:
[[1,7,2][0,6,5][8,3,4]] - f(n) = 23 + 7 = 30
[[1,7,2][8,6,5][3,0,4]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][8,1,3][7,0,6]]
```

```
Generated Nodes:
[[5,2,4][8,0,3][7,1,6]] - Already visited Node!
[[5,2,4][8,1,3][7,6,0]] - f(n) = 24 + 6 = 30
[[5,2,4][8,1,3][0,7,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 23 - [[7,2,0][3,4,8][1,5,6]]
Generated Nodes:
[[7,0,2][3,4,8][1,5,6]] - f(n) = 23 + 8 = 31
[[7,2,8][3,4,0][1,5,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,8][7,3,4][1,5,6]]
Generated Nodes:
[[2,0,8][7,3,4][1,5,6]] - f(n) = 23 + 8 = 31
[[7,2,8][0,3,4][1,5,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,8][1,3,4][0,5,6]]
Generated Nodes:
[[7,2,8][0,3,4][1,5,6]] - Already visited Node!
[[7,2,8][1,3,4][5,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,3,2][5,7,6][1,4,8]]
Generated Nodes:
[[3,0,2][5,7,6][1,4,8]] - Already visited Node!
[[5,3,2][0,7,6][1,4,8]] - Already visited Node!
Node Chosen for Level 22 - [[8,4,7][5,2,0][3,1,6]]
Generated Nodes:
[[8,4,0][5,2,7][3,1,6]] - Already visited Node!
[[8,4,7][5,0,2][3,1,6]] - Already visited Node!
[[8,4,7][5,2,6][3,1,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,8,4][0,2,7][3,1,6]]
Generated Nodes:
[[0,8,4][5,2,7][3,1,6]] - Already visited Node!
[[5,8,4][2,0,7][3,1,6]] - f(n) = 22 + 8 = 30
[[5,8,4][3,2,7][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,1][0,2,8][3,6,4]]
```

```
Generated Nodes:
[[0,5,1][7,2,8][3,6,4]] - Already visited Node!
[[7,5,1][2,0,8][3,6,4]] - f(n) = 22 + 8 = 30
[[7,5,1][3,2,8][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][3,4,0][6,1,8]]
Generated Nodes:
[[7,5,0][3,4,2][6,1,8]] - f(n) = 22 + 8 = 30
[[7,5,2][3,0,4][6,1,8]] - Already visited Node!
[[7,5,2][3,4,8][6,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][0,3,4][6,1,8]]
Generated Nodes:
[[0,5,2][7,3,4][6,1,8]] - f(n) = 22 + 8 = 30
[[7,5,2][3,0,4][6,1,8]] - Already visited Node!
[[7,5,2][6,3,4][0,1,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][0,1,4][3,6,8]]
Generated Nodes:
[[0,5,2][7,1,4][3,6,8]] - Already visited Node!
[[7,5,2][1,0,4][3,6,8]] - f(n) = 22 + 8 = 30
[[7,5,2][3,1,4][0,6,8]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,1][7,6,2][8,4,3]]
Generated Nodes:
[[5,1,0][7,6,2][8,4,3]] - Already visited Node!
[[0,5,1][7,6,2][8,4,3]] - f(n) = 22 + 8 = 30
[[5,6,1][7,0,2][8,4,3]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[0,3,2][5,7,1][6,8,4]]
Generated Nodes:
[[3,0,2][5,7,1][6,8,4]] - Already visited Node!
[[5,3,2][0,7,1][6,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,0][5,1,2][6,8,4]]
Generated Nodes:
[[3,0,7][5,1,2][6,8,4]] - f(n) = 23 + 7 = 30
[[3,7,2][5,1,0][6,8,4]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[3,7,2][5,1,4][6,8,0]]
Generated Nodes:
[[3,7,2][5,1,0][6,8,4]] - Already visited Node!
[[3,7,2][5,1,4][6,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 24 - [[4,5,2][8,3,6][7,0,1]]
Generated Nodes:
[[4,5,2][8,0,6][7,3,1]] - Already visited Node!
[[4,5,2][8,3,6][7,1,0]] - f(n) = 24 + 6 = 30
[[4,5,2][8,3,6][0,7,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,0,8][4,3,2][7,1,6]]
Generated Nodes:
[[5,8,0][4,3,2][7,1,6]] - Already visited Node!
[[0,5,8][4,3,2][7,1,6]] - f(n) = 24 + 6 = 30
[[5,3,8][4,0,2][7,1,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,0,2][4,8,3][7,1,6]]
Generated Nodes:
[[5,2,0][4,8,3][7,1,6]] - f(n) = 24 + 5 = 29
[[0,5,2][4,8,3][7,1,6]] - f(n) = 24 + 6 = 30
[[5,8,2][4,0,3][7,1,6]] - Already visited Node!
Node Chosen for Level 24 - [[5,8,2][4,1,3][7,0,6]]
Generated Nodes:
[[5,8,2][4,0,3][7,1,6]] - Already visited Node!
[[5,8,2][4,1,3][7,6,0]] - f(n) = 24 + 6 = 30
[[5,8,2][4,1,3][0,7,6]] - f(n) =
                                  24 + 7 = 31
Node Chosen for Level 24 - [[7,2,1][0,5,4][3,6,8]]
Generated Nodes:
[[0,2,1][7,5,4][3,6,8]] - f(n) = 24 + 6 = 30
[[7,2,1][5,0,4][3,6,8]] - f(n) = 24 + 7 = 31
[[7,2,1][3,5,4][0,6,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,3,2][1,0,4][5,8,6]]
Generated Nodes:
```

```
[[7,0,2][1,3,4][5,8,6]] - Already visited Node!
[[7,3,2][1,4,0][5,8,6]] - f(n) = 23 + 7 = 30
[[7,3,2][0,1,4][5,8,6]] - f(n) = 23 + 7 = 30
[[7,3,2][1,8,4][5,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,8,2][5,4,6][1,7,3]]
Generated Nodes:
[[8,0,2][5,4,6][1,7,3]] - f(n) = 23 + 7 = 30
[[5,8,2][0,4,6][1,7,3]] - Already visited Node!
Node Chosen for Level 24 - [[1,3,2][5,8,0][7,6,4]]
Generated Nodes:
[[1,3,0][5,8,2][7,6,4]] - f(n) = 24 + 6 = 30
[[1,3,2][5,0,8][7,6,4]] - f(n) = 24 + 6 = 30
[[1,3,2][5,8,4][7,6,0]] - Already visited Node!
Node Chosen for Level 24 - [[4,7,2][3,5,6][1,0,8]]
Generated Nodes:
[[4,7,2][3,0,6][1,5,8]] - f(n) = 24 + 7 = 31
[[4,7,2][3,5,6][1,8,0]] - f(n) = 24 + 5 = 29
[[4,7,2][3,5,6][0,1,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,1][6,3,5][8,4,0]]
Generated Nodes:
[[7,2,1][6,3,0][8,4,5]] - f(n) = 23 + 7 = 30
[[7,2,1][6,3,5][8,0,4]] - Already visited Node!
Node Chosen for Level 24 - [[5,0,4][3,6,2][7,8,1]]
Generated Nodes:
[[5,4,0][3,6,2][7,8,1]] - Already visited Node!
[[0,5,4][3,6,2][7,8,1]] - f(n) = 24 + 6 = 30
[[5,6,4][3,0,2][7,8,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[2,4,1][5,3,0][7,8,6]]
Generated Nodes:
[[2,4,0][5,3,1][7,8,6]] - Already visited Node!
[[2,4,1][5,0,3][7,8,6]] - f(n) = 24 + 6 = 30
[[2,4,1][5,3,6][7,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[2,3,4][5,1,0][7,8,6]]
```

```
Generated Nodes:
```

```
[[2,3,0][5,1,4][7,8,6]] - f(n) = 24 + 6 = 30
[[2,3,4][5,0,1][7,8,6]] - Already visited Node!
[[2,3,4][5,1,6][7,8,0]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 24 - [[5,4,1][3,2,0][7,8,6]]

Generated Nodes:

[[5,4,0][3,2,1][7,8,6]] - Already visited Node! [[5,4,1][3,0,2][7,8,6]] - Already visited Node! [[5,4,1][3,2,6][7,8,0]] - f(n) = 24 + 5 = 29

Node Chosen for Level 24 - [[3,5,4][0,2,1][7,8,6]]

Generated Nodes:

```
[[0,5,4][3,2,1][7,8,6]] - Already visited Node!
[[3,5,4][2,0,1][7,8,6]] - f(n) = 24 + 6 = 30
[[3,5,4][7,2,1][0,8,6]] - f(n) = 24 + 7 = 31
```

Node Chosen for Level 24 - [[5,2,4][3,8,0][7,6,1]]

Generated Nodes:

```
[[5,2,0][3,8,4][7,6,1]] - f(n) = 24 + 6 = 30
[[5,2,4][3,0,8][7,6,1]] - f(n) = 24 + 6 = 30
[[5,2,4][3,8,1][7,6,0]] - Already visited Node!
```

Node Chosen for Level 24 - [[5,2,6][0,7,3][4,8,1]]

Generated Nodes:

[[0,2,6][5,7,3][4,8,1]] - f(n) = 24 + 6 = 30[[5,2,6][7,0,3][4,8,1]] - Already visited Node!

[[5,2,6][4,7,3][0,8,1]] - f(n) = 24 + 5 = 29

Node Chosen for Level 23 - [[8,1,2][7,5,4][3,6,0]]

Generated Nodes:

[[8,1,2][7,5,0][3,6,4]] - f(n) = 23 + 7 = 30[[8,1,2][7,5,4][3,0,6]] - Already visited Node!

Node Chosen for Level 24 - [[5,2,6][0,7,3][4,8,1]]

Generated Nodes:

[[0,2,6][5,7,3][4,8,1]] - f(n) = 24 + 6 = 30[[5,2,6][7,0,3][4,8,1]] - Already visited Node!

```
[[5,2,6][4,7,3][0,8,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,2,6][0,7,4][1,8,3]]
Generated Nodes:
[[0,2,6][5,7,4][1,8,3]] - f(n) = 24 + 6 = 30
[[5,2,6][7,0,4][1,8,3]] - Already visited Node!
[[5,2,6][1,7,4][0,8,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[8,2,6][5,3,4][7,0,1]]
Generated Nodes:
[[8,2,6][5,0,4][7,3,1]] - Already visited Node!
[[8,2,6][5,3,4][7,1,0]] - f(n) = 24 + 6 = 30
[[8,2,6][5,3,4][0,7,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[8,2,6][5,4,1][7,0,3]]
Generated Nodes:
[[8,2,6][5,0,1][7,4,3]] - f(n) = 24 + 6 = 30
[[8,2,6][5,4,1][7,3,0]] - Already visited Node!
[[8,2,6][5,4,1][0,7,3]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,0,2][3,1,6][7,4,8]]
Generated Nodes:
[[5,2,0][3,1,6][7,4,8]] - f(n) = 24 + 5 = 29
[[0,5,2][3,1,6][7,4,8]] - f(n) = 24 + 6 = 30
[[5,1,2][3,0,6][7,4,8]] - Already visited Node!
Node Chosen for Level 24 - [[5,1,2][0,3,6][7,4,8]]
Generated Nodes:
[[0,1,2][5,3,6][7,4,8]] - f(n) = 24 + 6 = 30
[[5,1,2][3,0,6][7,4,8]] - Already visited Node!
[[5,1,2][7,3,6][0,4,8]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[3,2,4][0,7,6][5,1,8]]
Generated Nodes:
[[0,2,4][3,7,6][5,1,8]] - f(n) = 24 + 6 = 30
[[3,2,4][7,0,6][5,1,8]] - f(n) = 24 + 6 = 30
[[3,2,4][5,7,6][0,1,8]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,5][4,1,2][3,8,6]]
```

```
Generated Nodes:
```

```
[[7,5,0][4,1,2][3,8,6]] - Already visited Node! [[0,7,5][4,1,2][3,8,6]] - f(n) = 24 + 6 = 30 [[7,1,5][4,0,2][3,8,6]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 23 - [[1,7,2][5,6,3][8,4,0]]

Generated Nodes:

```
[[1,7,2][5,6,0][8,4,3]] - Already visited Node! [[1,7,2][5,6,3][8,0,4]] - Already visited Node!
```

Node Character Lavel 24 [[2 0 5][4 7 6][1 2 0]]

Node Chosen for Level 24 - [[3,0,5][4,7,6][1,2,8]]

Generated Nodes:

```
[[3,5,0][4,7,6][1,2,8]] - f(n) = 24 + 6 = 30

[[0,3,5][4,7,6][1,2,8]] - f(n) = 24 + 6 = 30

[[3,7,5][4,0,6][1,2,8]] - Already visited Node!
```

Node Chosen for Level 24 - [[1,0,5][3,7,2][4,8,6]]

Generated Nodes:

```
[[1,5,0][3,7,2][4,8,6]] - f(n) = 24 + 6 = 30

[[0,1,5][3,7,2][4,8,6]] - f(n) = 24 + 7 = 31

[[1,7,5][3,0,2][4,8,6]] - Already visited Node!
```

Node Chosen for Level 24 - [[1,7,5][3,2,0][4,8,6]]

Generated Nodes:

```
[[1,7,0][3,2,5][4,8,6]] - f(n) = 24 + 6 = 30

[[1,7,5][3,0,2][4,8,6]] - Already visited Node!

[[1,7,5][3,2,6][4,8,0]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 25 - [[7,2,3][4,1,5][8,6,0]]

Generated Nodes :

```
[[7,2,3][4,1,0][8,6,5]] - f(n) = 25 + 5 = 30
[[7,2,3][4,1,5][8,0,6]] - Already visited Node!
```

Node Chosen for Level 23 - [[3,7,4][2,0,6][1,5,8]]

Generated Nodes:

$$[[3,0,4][2,7,6][1,5,8]] - f(n) = 23 + 7 = 30$$

 $[[3,7,4][2,6,0][1,5,8]] - f(n) = 23 + 8 = 31$
 $[[3,7,4][0,2,6][1,5,8]] - Already visited Node!$
 $[[3,7,4][2,5,6][1,0,8]] - Already visited Node!$

```
Node Chosen for Level 23 - [[3,7,4][1,2,6][0,5,8]]
Generated Nodes:
[[3,7,4][0,2,6][1,5,8]] - Already visited Node!
[[3,7,4][1,2,6][5,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,4][3,6,8][0,1,5]]
Generated Nodes:
[[7,2,4][0,6,8][3,1,5]] - f(n) = 23 + 7 = 30
[[7,2,4][3,6,8][1,0,5]] - Already visited Node!
Node Chosen for Level 22 - [[3,0,7][1,4,2][8,5,6]]
Generated Nodes:
[[3,7,0][1,4,2][8,5,6]] - Already visited Node!
[[0,3,7][1,4,2][8,5,6]] - f(n) = 22 + 8 = 30
[[3,4,7][1,0,2][8,5,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,2][3,1,4][8,5,6]]
Generated Nodes:
[[7,2,0][3,1,4][8,5,6]] - f(n) = 22 + 7 = 29
[[0,7,2][3,1,4][8,5,6]] - Already visited Node!
[[7,1,2][3,0,4][8,5,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,7,2][8,1,4][5,0,6]]
Generated Nodes:
[[3,7,2][8,0,4][5,1,6]] - Already visited Node!
[[3,7,2][8,1,4][5,6,0]] - f(n) = 22 + 8 = 30
[[3,7,2][8,1,4][0,5,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,6,0][7,4,2][3,8,1]]
Generated Nodes:
[[5,0,6][7,4,2][3,8,1]] - Already visited Node!
[[5,6,2][7,4,0][3,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,6][7,4,2][3,8,1]]
Generated Nodes:
[[5,0,6][7,4,2][3,8,1]] - Already visited Node!
[[7,5,6][0,4,2][3,8,1]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[0,4,6][5,7,2][3,8,1]]
Generated Nodes:
[[4,0,6][5,7,2][3,8,1]] - f(n) = 23 + 7 = 30
[[5,4,6][0,7,2][3,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,6][3,7,2][0,8,1]]
Generated Nodes:
[[5,4,6][0,7,2][3,8,1]] - Already visited Node!
[[5,4,6][3,7,2][8,0,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[7,5,2][6,0,4][3,8,1]]
Generated Nodes:
[[7,0,2][6,5,4][3,8,1]] - f(n) = 23 + 6 = 29
[[7,5,2][6,4,0][3,8,1]] - f(n) = 23 + 7 = 30
[[7,5,2][0,6,4][3,8,1]] - Already visited Node!
[[7,5,2][6,8,4][3,0,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[7,5,2][3,6,4][0,8,1]]
Generated Nodes:
[[7,5,2][0,6,4][3,8,1]] - Already visited Node!
[[7,5,2][3,6,4][8,0,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[5,6,0][7,4,2][3,8,1]]
Generated Nodes:
[[5,0,6][7,4,2][3,8,1]] - Already visited Node!
[[5,6,2][7,4,0][3,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,6,2][7,4,1][3,8,0]]
Generated Nodes:
[[5,6,2][7,4,0][3,8,1]] - Already visited Node!
[[5,6,2][7,4,1][3,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,6,2][5,7,4][3,8,1]]
Generated Nodes:
[[6,0,2][5,7,4][3,8,1]] - f(n) = 23 + 7 = 30
[[5,6,2][0,7,4][3,8,1]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[5,6,2][3,7,4][0,8,1]]
Generated Nodes:
[[5,6,2][0,7,4][3,8,1]] - Already visited Node!
[[5,6,2][3,7,4][8,0,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[2,4,5][7,0,3][1,8,6]]
Generated Nodes:
[[2,0,5][7,4,3][1,8,6]] - f(n) = 23 + 7 = 30
[[2,4,5][7,3,0][1,8,6]] - Already visited Node!
[[2,4,5][0,7,3][1,8,6]] - f(n) = 23 + 7 = 30
[[2,4,5][7,8,3][1,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,3,4][2,7,5][1,8,6]]
Generated Nodes:
[[3,0,4][2,7,5][1,8,6]] - Already visited Node!
[[2,3,4][0,7,5][1,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[2,3,4][1,7,5][0,8,6]]
Generated Nodes:
[[2,3,4][0,7,5][1,8,6]] - Already visited Node!
[[2,3,4][1,7,5][8,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 24 - [[7,2,4][0,1,6][5,3,8]]
Generated Nodes:
[[0,2,4][7,1,6][5,3,8]] - f(n) = 24 + 6 = 30
[[7,2,4][1,0,6][5,3,8]] - Already visited Node!
[[7,2,4][5,1,6][0,3,8]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,6][4,1,3][8,0,5]]
Generated Nodes:
[[7,2,6][4,0,3][8,1,5]] - Already visited Node!
[[7,2,6][4,1,3][8,5,0]] - Already visited Node! [[7,2,6][4,1,3][0,8,5]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[0,8,7][3,5,2][4,1,6]]
Generated Nodes:
[[8,0,7][3,5,2][4,1,6]] - Already visited Node!
[[3,8,7][0,5,2][4,1,6]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 22 - [[3,8,2][0,7,1][6,5,4]]
Generated Nodes:
[[0,8,2][3,7,1][6,5,4]] - Already visited Node!
[[3,8,2][7,0,1][6,5,4]] - f(n) = 22 + 8 = 30
[[3,8,2][6,7,1][0,5,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,0,7][3,1,2][6,5,4]]
Generated Nodes:
[[8,7,0][3,1,2][6,5,4]] - Already visited Node!
[[0,8,7][3,1,2][6,5,4]] - f(n) = 22 + 8 = 30
[[8,1,7][3,0,2][6,5,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,2][3,1,4][6,0,5]]
Generated Nodes:
[[8,7,2][3,0,4][6,1,5]] - f(n) = 22 + 8 = 30
[[8,7,2][3,1,4][6,5,0]] - Already visited Node!
[[8,7,2][3,1,4][0,6,5]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,2][8,3,1][6,5,4]]
Generated Nodes:
[[7,2,0][8,3,1][6,5,4]] - f(n) = 22 + 7 = 29
[[0,7,2][8,3,1][6,5,4]] - Already visited Node!
[[7,3,2][8,0,1][6,5,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,2][6,3,1][5,0,4]]
Generated Nodes:
[[8,7,2][6,0,1][5,3,4]] - Already visited Node!
[[8,7,2][6,3,1][5,4,0]] - f(n) = 22 + 8 = 30
[[8,7,2][6,3,1][0,5,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,0,7][5,8,2][1,6,4]]
Generated Nodes:
[[3,7,0][5,8,2][1,6,4]] - Already visited Node!
[[0,3,7][5,8,2][1,6,4]] - f(n) = 22 + 8 = 30
[[3,8,7][5,0,2][1,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,7,2][5,6,0][1,4,8]]
```

Generated Nodes:

```
[[3,7,0][5,6,2][1,4,8]] - f(n) = 22 + 8 = 30
[[3,7,2][5,0,6][1,4,8]] - Already visited Node!
[[3,7,2][5,6,8][1,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,2][0,6,8][5,1,4]]
Generated Nodes:
[[0,7,2][3,6,8][5,1,4]] - f(n) = 22 + 8 = 30
[[3,7,2][6,0,8][5,1,4]] - f(n) = 22 + 8 = 30
[[3,7,2][5,6,8][0,1,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,4][2,0,3][1,8,6]]
Generated Nodes:
[[7,0,4][2,5,3][1,8,6]] - f(n) = 23 + 6 = 29
[[7,5,4][2,3,0][1,8,6]] - f(n) = 23 + 7 = 30
[[7,5,4][0,2,3][1,8,6]] - Already visited Node!
[[7,5,4][2,8,3][1,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[7,5,4][1,2,3][0,8,6]]
Generated Nodes:
[[7,5,4][0,2,3][1,8,6]] - Already visited Node!
[[7,5,4][1,2,3][8,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[5,2,0][7,8,4][1,6,3]]
Generated Nodes:
[[5,0,2][7,8,4][1,6,3]] - f(n) = 23 + 8 = 31
[[5,2,4][7,8,0][1,6,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][7,0,8][1,6,3]]
Generated Nodes:
[[5,0,4][7,2,8][1,6,3]] - f(n) = 23 + 8 = 31
[[5,2,4][7,8,0][1,6,3]] - Already visited Node! [[5,2,4][0,7,8][1,6,3]] - f(n) = 23 + 7 = 30
[[5,2,4][7,6,8][1,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,8,7][4,6,5][3,2,1]]
Generated Nodes:
[[8,0,7][4,6,5][3,2,1]] - Already visited Node!
[[4,8,7][0,6,5][3,2,1]] - f(n) = 23 + 8 = 31
```

```
Node Chosen for Level 23 - [[8,6,7][4,0,5][3,2,1]]
Generated Nodes:
[[8,0,7][4,6,5][3,2,1]] - Already visited Node!
[[8,6,7][4,5,0][3,2,1]] - f(n) = 23 + 6 = 29
[[8,6,7][0,4,5][3,2,1]] - f(n) = 23 + 8 = 31
[[8,6,7][4,2,5][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,5][3,0,6][2,4,1]]
Generated Nodes:
[[8,0,5][3,7,6][2,4,1]] - f(n) = 23 + 7 = 30
[[8,7,5][3,6,0][2,4,1]] - f(n) = 23 + 8 = 31
[[8,7,5][0,3,6][2,4,1]] - f(n) = 23 + 7 = 30
[[8,7,5][3,4,6][2,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,5][3,4,6][2,1,0]]
Generated Nodes:
[[8,7,5][3,4,0][2,1,6]] - f(n) = 23 + 8 = 31
[[8,7,5][3,4,6][2,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,0][8,2,6][4,3,1]]
Generated Nodes:
[[7,0,5][8,2,6][4,3,1]] - Already visited Node!
[[7,5,6][8,2,0][4,3,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[8,5,0][2,7,6][4,3,1]]
Generated Nodes:
[[8,0,5][2,7,6][4,3,1]] - Already visited Node!
[[8,5,6][2,7,0][4,3,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,8,5][2,7,6][4,3,1]]
Generated Nodes:
[[8,0,5][2,7,6][4,3,1]] - Already visited Node!
[[2,8,5][0,7,6][4,3,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,5][2,3,6][4,1,0]]
Generated Nodes:
[[8,7,5][2,3,0][4,1,6]] - f(n) = 23 + 8 = 31
[[8,7,5][2,3,6][4,0,1]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[8,7,5][2,3,6][0,4,1]]
Generated Nodes:
[[8,7,5][0,3,6][2,4,1]] - f(n) = 23 + 7 = 30
[[8,7,5][2,3,6][4,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,4][2,0,6][8,1,3]]
Generated Nodes:
[[7,0,4][2,5,6][8,1,3]] - f(n) = 23 + 6 = 29
[[7,5,4][2,6,0][8,1,3]] - f(n) = 23 + 8 = 31
[[7,5,4][0,2,6][8,1,3]] - Already visited Node!
[[7,5,4][2,1,6][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,4][8,2,6][0,1,3]]
Generated Nodes:
[[7,5,4][0,2,6][8,1,3]] - Already visited Node!
[[7,5,4][8,2,6][1,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,4,8][5,0,1][7,3,6]]
Generated Nodes:
[[2,0,8][5,4,1][7,3,6]] - f(n) = 23 + 7 = 30
[[2,4,8][5,1,0][7,3,6]] - Already visited Node!
[[2,4,8][0,5,1][7,3,6]] - f(n) = 23 + 6 = 29
[[2,4,8][5,3,1][7,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,1,0][5,8,4][7,3,6]]
Generated Nodes:
[[2,0,1][5,8,4][7,3,6]] - f(n) = 23 + 7 = 30
[[2,1,4][5,8,0][7,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[2,1,4][5,3,8][7,6,0]]
Generated Nodes:
[[2,1,4][5,3,0][7,6,8]] - f(n) = 23 + 7 = 30
[[2,1,4][5,3,8][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,1,0][3,8,2][7,6,4]]
Generated Nodes:
[[5,0,1][3,8,2][7,6,4]] - f(n) = 23 + 7 = 30
```

```
[[5,1,2][3,8,0][7,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,1,2][3,0,8][7,6,4]]
Generated Nodes:
[[5,0,2][3,1,8][7,6,4]] - f(n) = 23 + 7 = 30
[[5,1,2][3,8,0][7,6,4]] - Already visited Node!
[[5,1,2][0,3,8][7,6,4]] - f(n) = 23 + 7 = 30
[[5,1,2][3,6,8][7,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,6][5,4,7][3,1,0]]
Generated Nodes:
[[8,2,6][5,4,0][3,1,7]] - f(n) = 23 + 7 = 30
[[8,2,6][5,4,7][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,6][5,4,7][0,3,1]]
Generated Nodes:
[[8,2,6][0,4,7][5,3,1]] - f(n) = 23 + 7 = 30
[[8,2,6][5,4,7][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,6][5,0,1][3,7,4]]
Generated Nodes:
[[8,0,6][5,2,1][3,7,4]] - f(n) = 23 + 8 = 31
[[8,2,6][5,1,0][3,7,4]] - f(n) = 23 + 7 = 30
[[8,2,6][0,5,1][3,7,4]] - f(n) = 23 + 6 = 29
[[8,2,6][5,7,1][3,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,6][5,7,1][0,3,4]]
Generated Nodes:
[[8,2,6][0,7,1][5,3,4]] - f(n) = 23 + 7 = 30
[[8,2,6][5,7,1][3,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[0,3,2][5,7,6][1,4,8]]
Generated Nodes:
[[3,0,2][5,7,6][1,4,8]] - Already visited Node!
[[5,3,2][0,7,6][1,4,8]] - Already visited Node!
Node Chosen for Level 23 - [[0,7,2][3,4,6][5,1,8]]
Generated Nodes:
```

```
[[7,0,2][3,4,6][5,1,8]] - f(n) = 23 + 7 = 30
[[3,7,2][0,4,6][5,1,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,6,2][7,0,1][4,8,3]]
Generated Nodes:
[[5,0,2][7,6,1][4,8,3]] - Already visited Node!
[[5,6,2][7,1,0][4,8,3]] - f(n) = 23 + 7 = 30
[[5,6,2][0,7,1][4,8,3]] - f(n) = 23 + 7 = 30
[[5,6,2][7,8,1][4,0,3]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[7,5,0][6,1,2][4,8,3]]
Generated Nodes:
[[7,0,5][6,1,2][4,8,3]] - f(n) = 23 + 7 = 30
[[7,5,2][6,1,0][4,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][6,1,3][4,8,0]]
Generated Nodes:
[[7,5,2][6,1,0][4,8,3]] - Already visited Node!
[[7,5,2][6,1,3][4,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,7,5][4,6,2][3,1,8]]
Generated Nodes:
[[7,0,5][4,6,2][3,1,8]] - Already visited Node!
[[4,7,5][0,6,2][3,1,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[7,6,5][4,0,2][3,1,8]]
Generated Nodes:
[[7,0,5][4,6,2][3,1,8]] - Already visited Node!
[[7,6,5][4,2,0][3,1,8]] - f(n) = 23 + 7 = 30
[[7,6,5][0,4,2][3,1,8]] - f(n) = 23 + 8 = 31
[[7,6,5][4,1,2][3,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,2][4,0,8][3,6,1]]
Generated Nodes:
[[7,0,2][4,5,8][3,6,1]] - f(n) = 23 + 6 = 29
[[7,5,2][4,8,0][3,6,1]] - f(n) = 23 + 7 = 30
[[7,5,2][0,4,8][3,6,1]] - f(n) = 23 + 8 = 31
[[7,5,2][4,6,8][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][4,6,8][0,3,1]]
```

```
Generated Nodes:
[[7,5,2][0,6,8][4,3,1]] - f(n) = 23 + 8 = 31
[[7,5,2][4,6,8][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,0][4,8,5][1,6,2]]
Generated Nodes:
[[3,0,7][4,8,5][1,6,2]] - f(n) = 23 + 7 = 30
[[3,7,5][4,8,0][1,6,2]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,5][4,0,8][1,6,2]]
Generated Nodes:
[[3,0,5][4,7,8][1,6,2]] - f(n) = 23 + 7 = 30
[[3,7,5][4,8,0][1,6,2]] - Already visited Node!
[[3,7,5][0,4,8][1,6,2]] - f(n) = 23 + 8 = 31
[[3,7,5][4,6,8][1,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,0][3,4,6][1,2,8]]
Generated Nodes:
[[7,0,5][3,4,6][1,2,8]] - Already visited Node!
[[7,5,6][3,4,0][1,2,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,7,5][3,4,6][1,2,8]]
Generated Nodes:
[[7,0,5][3,4,6][1,2,8]] - Already visited Node!
[[3,7,5][0,4,6][1,2,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,5][7,3,6][1,2,8]]
Generated Nodes:
[[4,0,5][7,3,6][1,2,8]] - f(n) = 23 + 7 = 30
[[7,4,5][0,3,6][1,2,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][1,3,6][0,2,8]]
Generated Nodes:
[[7,4,5][0,3,6][1,2,8]] - Already visited Node!
[[7,4,5][1,3,6][2,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,5][7,2,6][3,1,8]]
```

```
Generated Nodes:
[[4,0,5][7,2,6][3,1,8]] - f(n) = 23 + 7 = 30
[[7,4,5][0,2,6][3,1,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][2,0,6][3,1,8]]
Generated Nodes:
[[7,0,5][2,4,6][3,1,8]] - f(n) = 23 + 7 = 30
[[7,4,5][2,6,0][3,1,8]] - f(n) = 23 + 8 = 31
[[7,4,5][0,2,6][3,1,8]] - Already visited Node!
[[7,4,5][2,1,6][3,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,3,2][5,7,6][1,4,8]]
Generated Nodes:
[[3,0,2][5,7,6][1,4,8]] - Already visited Node!
[[5,3,2][0,7,6][1,4,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,3,2][1,7,6][0,4,8]]
Generated Nodes:
[[5,3,2][0,7,6][1,4,8]] - Already visited Node!
[[5,3,2][1,7,6][4,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,7][3,4,5][1,6,0]]
Generated Nodes:
[[8,2,7][3,4,0][1,6,5]] - f(n) = 23 + 7 = 30
[[8,2,7][3,4,5][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,0][3,4,6][1,2,8]]
Generated Nodes:
[[7,0,5][3,4,6][1,2,8]] - Already visited Node!
[[7,5,6][3,4,0][1,2,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,7,5][3,4,6][1,2,8]]
Generated Nodes:
[[7,0,5][3,4,6][1,2,8]] - Already visited Node!
[[3,7,5][0,4,6][1,2,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,5][7,3,6][1,2,8]]
Generated Nodes:
```

```
[[4,0,5][7,3,6][1,2,8]] - f(n) = 23 + 7 = 30
[[7,4,5][0,3,6][1,2,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][1,3,6][0,2,8]]
Generated Nodes:
[[7,4,5][0,3,6][1,2,8]] - Already visited Node!
[[7,4,5][1,3,6][2,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,5][7,2,6][3,1,8]]
Generated Nodes:
[[4,0,5][7,2,6][3,1,8]] - f(n) = 23 + 7 = 30
[[7,4,5][0,2,6][3,1,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][2,0,6][3,1,8]]
Generated Nodes:
[[7,0,5][2,4,6][3,1,8]] - f(n) = 23 + 7 = 30
[[7,4,5][2,6,0][3,1,8]] - f(n) = 23 + 8 = 31
[[7,4,5][0,2,6][3,1,8]] - Already visited Node!
[[7,4,5][2,1,6][3,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 25 - [[5,2,6][4,3,8][7,1,0]]
Generated Nodes:
[[5,2,6][4,3,0][7,1,8]] - f(n) = 25 + 5 = 30
[[5,2,6][4,3,8][7,0,1]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,6][4,5,8][0,3,1]]
Generated Nodes:
[[7,2,6][0,5,8][4,3,1]] - f(n) = 25 + 6 = 31
[[7,2,6][4,5,8][3,0,1]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,3][8,1,5][6,0,4]]
Generated Nodes:
[[7,2,3][8,0,5][6,1,4]] - f(n) = 24 + 6 = 30
[[7,2,3][8,1,5][6,4,0]] - f(n) = 24 + 6 = 30
[[7,2,3][8,1,5][0,6,4]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,3][1,6,0][8,4,5]]
Generated Nodes:
```

```
[[7,2,0][1,6,3][8,4,5]] - f(n) = 24 + 7 = 31
[[7,2,3][1,0,6][8,4,5]] - f(n) = 24 + 5 = 29
[[7,2,3][1,6,5][8,4,0]] - Already visited Node!
Node Chosen for Level 25 - [[0,5,1][4,6,2][7,8,3]]
Generated Nodes:
[[5,0,1][4,6,2][7,8,3]] - Already visited Node!
[[4,5,1][0,6,2][7,8,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,6,1][4,0,2][7,8,3]]
Generated Nodes:
[[5,0,1][4,6,2][7,8,3]] - Already visited Node!
[[5,6,1][4,2,0][7,8,3]] - f(n) = 25 + 5 = 30
[[5,6,1][0,4,2][7,8,3]] - f(n) = 25 + 6 = 31
[[5,6,1][4,8,2][7,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 22 - [[8,0,6][2,7,5][3,4,1]]
Generated Nodes:
[[8,6,0][2,7,5][3,4,1]] - f(n) = 22 + 8 = 30
[[0,8,6][2,7,5][3,4,1]] - f(n) = 22 + 8 = 30
[[8,7,6][2,0,5][3,4,1]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,6][2,4,5][3,0,1]]
Generated Nodes:
[[8,7,6][2,0,5][3,4,1]] - Already visited Node!
[[8,7,6][2,4,5][3,1,0]] - f(n) = 22 + 8 = 30
[[8,7,6][2,4,5][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,6][3,2,5][4,0,1]]
Generated Nodes:
[[8,7,6][3,0,5][4,2,1]] - f(n) = 22 + 8 = 30
[[8,7,6][3,2,5][4,1,0]] - f(n) = 22 + 8 = 30
[[8,7,6][3,2,5][0,4,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,7][0,6,2][3,4,1]]
Generated Nodes:
[[0,8,7][5,6,2][3,4,1]] - Already visited Node!
[[5,8,7][6,0,2][3,4,1]] - f(n) = 22 + 8 = 30
[[5,8,7][3,6,2][0,4,1]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[8,6,7][5,2,0][3,4,1]]
Generated Nodes:
[[8,6,0][5,2,7][3,4,1]] - f(n) = 22 + 8 = 30
[[8,6,7][5,0,2][3,4,1]] - Already visited Node!
[[8,6,7][5,2,1][3,4,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,6,7][5,4,2][3,0,1]]
Generated Nodes:
[[8,6,7][5,0,2][3,4,1]] - Already visited Node!
[[8,6,7][5,4,2][3,1,0]] - f(n) = 22 + 8 = 30
[[8,6,7][5,4,2][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,0,7][5,8,2][1,6,4]]
Generated Nodes:
[[3,7,0][5,8,2][1,6,4]] - Already visited Node!
[[0,3,7][5,8,2][1,6,4]] - f(n) = 22 + 8 = 30
[[3,8,7][5,0,2][1,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,2][3,8,4][5,1,6]]
Generated Nodes:
[[7,2,0][3,8,4][5,1,6]] - f(n) = 22 + 7 = 29
[[0,7,2][3,8,4][5,1,6]] - Already visited Node!
[[7,8,2][3,0,4][5,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,0,2][8,7,4][5,1,6]]
Generated Nodes:
[[3,2,0][8,7,4][5,1,6]] - f(n) = 22 + 7 = 29
[[0,3,2][8,7,4][5,1,6]] - f(n) = 22 + 8 = 30
[[3,7,2][8,0,4][5,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,2][8,4,0][5,1,6]]
Generated Nodes:
[[3,7,0][8,4,2][5,1,6]] - f(n) = 22 + 8 = 30
[[3,7,2][8,0,4][5,1,6]] - Already visited Node!
[[3,7,2][8,4,6][5,1,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,7,2][8,1,4][5,0,6]]
```

```
[[3,7,2][8,0,4][5,1,6]] - Already visited Node!
[[3,7,2][8,1,4][5,6,0]] - f(n) = 22 + 8 = 30
[[3,7,2][8,1,4][0,5,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,1][2,7,5][3,6,4]]
Generated Nodes:
[[8,1,0][2,7,5][3,6,4]] - f(n) = 22 + 8 = 30
[[0,8,1][2,7,5][3,6,4]] - f(n) = 22 + 8 = 30
[[8,7,1][2,0,5][3,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,1][2,6,5][3,0,4]]
Generated Nodes:
[[8,7,1][2,0,5][3,6,4]] - Already visited Node!
[[8,7,1][2,6,5][3,4,0]] - f(n) = 22 + 8 = 30
[[8,7,1][2,6,5][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,1][3,2,5][6,0,4]]
Generated Nodes:
[[8,7,1][3,0,5][6,2,4]] - f(n) = 22 + 8 = 30
[[8,7,1][3,2,5][6,4,0]] - f(n) = 22 + 8 = 30
[[8,7,1][3,2,5][0,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,5][0,6,2][1,4,8]]
Generated Nodes:
[[0,7,5][3,6,2][1,4,8]] - Already visited Node!
[[3,7,5][6,0,2][1,4,8]] - f(n) = 22 + 8 = 30
[[3,7,5][1,6,2][0,4,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,5][3,2,0][1,4,8]]
Generated Nodes:
[[7,6,0][3,2,5][1,4,8]] - f(n) = 22 + 8 = 30
[[7,6,5][3,0,2][1,4,8]] - Already visited Node!
[[7,6,5][3,2,8][1,4,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,5][0,3,2][1,4,8]]
Generated Nodes:
[[0,6,5][7,3,2][1,4,8]] - f(n) = 22 + 8 = 30
[[7,6,5][3,0,2][1,4,8]] - Already visited Node!
[[7,6,5][1,3,2][0,4,8]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[7,6,5][3,4,2][1,0,8]]
Generated Nodes:
[[7,6,5][3,0,2][1,4,8]] - Already visited Node!
[[7,6,5][3,4,2][1,8,0]] - f(n) = 22 + 7 = 29
[[7,6,5][3,4,2][0,1,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 23 - [[7,2,6][8,1,4][0,3,5]]
Generated Nodes:
[[7,2,6][0,1,4][8,3,5]] - f(n) = 23 + 7 = 30
[[7,2,6][8,1,4][3,0,5]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][3,8,1][5,4,0]]
Generated Nodes:
[[7,2,6][3,8,0][5,4,1]] - f(n) = 23 + 7 = 30
[[7,2,6][3,8,1][5,0,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,8][0,6,2][3,4,1]]
Generated Nodes:
[[0,5,8][7,6,2][3,4,1]] - Already visited Node!
[[7,5,8][6,0,2][3,4,1]] - f(n) = 22 + 8 = 30
[[7,5,8][3,6,2][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,8][7,2,0][3,4,1]]
Generated Nodes:
[[5,6,0][7,2,8][3,4,1]] - Already visited Node!
[[5,6,8][7,0,2][3,4,1]] - Already visited Node!
[[5,6,8][7,2,1][3,4,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,8][0,7,2][3,4,1]]
Generated Nodes:
[[0,6,8][5,7,2][3,4,1]] - f(n) = 22 + 8 = 30
[[5,6,8][7,0,2][3,4,1]] - Already visited Node!
[[5,6,8][3,7,2][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,8][7,4,2][3,0,1]]
Generated Nodes:
[[5,6,8][7,0,2][3,4,1]] - Already visited Node!
```

```
[[5,6,8][7,4,2][3,1,0]] - f(n) = 22 + 8 = 30
[[5,6,8][7,4,2][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,7,5][0,8,2][4,1,6]]
Generated Nodes:
[[0,7,5][3,8,2][4,1,6]] - Already visited Node!
[[3,7,5][8,0,2][4,1,6]] - f(n) = 22 + 8 = 30
[[3,7,5][4,8,2][0,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,8,5][3,2,0][4,1,6]]
Generated Nodes:
[[7,8,0][3,2,5][4,1,6]] - f(n) = 22 + 8 = 30
[[7,8,5][3,0,2][4,1,6]] - Already visited Node!
[[7,8,5][3,2,6][4,1,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,8,5][0,3,2][4,1,6]]
Generated Nodes:
[[0,8,5][7,3,2][4,1,6]] - f(n) = 22 + 8 = 30
[[7,8,5][3,0,2][4,1,6]] - Already visited Node!
[[7,8,5][4,3,2][0,1,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,8,5][3,1,2][4,0,6]]
Generated Nodes:
[[7,8,5][3,0,2][4,1,6]] - Already visited Node!
[[7,8,5][3,1,2][4,6,0]] - f(n) = 22 + 8 = 30
[[7,8,5][3,1,2][0,4,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,2][7,3,8][4,1,6]]
Generated Nodes:
[[5,2,0][7,3,8][4,1,6]] - f(n) = 22 + 7 = 29
[[0,5,2][7,3,8][4,1,6]] - Already visited Node!
[[5,3,2][7,0,8][4,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][3,1,0][4,6,8]]
Generated Nodes:
[[7,5,0][3,1,2][4,6,8]] - f(n) = 22 + 8 = 30
[[7,5,2][3,0,1][4,6,8]] - Already visited Node!
[[7,5,2][3,1,8][4,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][0,1,8][3,4,6]]
```

```
Generated Nodes:
[[0,5,2][7,1,8][3,4,6]] - f(n) = 22 + 8 = 30
[[7,5,2][1,0,8][3,4,6]] - f(n) = 22 + 8 = 30
[[7,5,2][3,1,8][0,4,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,4][0,6,2][8,3,1]]
Generated Nodes:
[[0,5,4][7,6,2][8,3,1]] - Already visited Node!
[[7,5,4][6,0,2][8,3,1]] - f(n) = 22 + 8 = 30
[[7,5,4][8,6,2][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,4][7,2,0][8,3,1]]
Generated Nodes:
[[5,6,0][7,2,4][8,3,1]] - Already visited Node!
[[5,6,4][7,0,2][8,3,1]] - Already visited Node!
[[5,6,4][7,2,1][8,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,4][0,7,2][8,3,1]]
Generated Nodes:
[[0,6,4][5,7,2][8,3,1]] - f(n) = 22 + 8 = 30
[[5,6,4][7,0,2][8,3,1]] - Already visited Node!
[[5,6,4][8,7,2][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,4][7,3,2][8,0,1]]
Generated Nodes:
[[5,6,4][7,0,2][8,3,1]] - Already visited Node!
[[5,6,4][7,3,2][8,1,0]] - f(n) = 22 + 8 = 30
[[5,6,4][7,3,2][0,8,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,0,2][7,4,1][8,6,3]]
Generated Nodes:
[[5,2,0][7,4,1][8,6,3]] - f(n) = 22 + 7 = 29
[[0,5,2][7,4,1][8,6,3]] - Already visited Node!
[[5,4,2][7,0,1][8,6,3]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,2][7,1,0][8,6,3]]
Generated Nodes:
```

[[5,4,0][7,1,2][8,6,3]] - f(n) = 22 + 8 = 30

```
[[5,4,2][7,0,1][8,6,3]] - Already visited Node!
[[5,4,2][7,1,3][8,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,2][0,7,1][8,6,3]]
Generated Nodes:
[[0,4,2][5,7,1][8,6,3]] - f(n) = 22 + 8 = 30
[[5,4,2][7,0,1][8,6,3]] - Already visited Node!
[[5,4,2][8,7,1][0,6,3]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,0,8][5,4,7][3,1,6]]
Generated Nodes:
[[2,8,0][5,4,7][3,1,6]] - f(n) =
                                  22 + 8 = 30
[[0,2,8][5,4,7][3,1,6]] - f(n) = 22 + 7 = 29
[[2,4,8][5,0,7][3,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[2,4,8][5,1,7][3,0,6]]
Generated Nodes:
[[2,4,8][5,0,7][3,1,6]] - Already visited Node!
[[2,4,8][5,1,7][3,6,0]] - f(n) = 22 + 8 = 30
[[2,4,8][5,1,7][0,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,0,7][5,8,4][3,1,6]]
Generated Nodes:
[[2,7,0][5,8,4][3,1,6]] - Already visited Node!
[[0,2,7][5,8,4][3,1,6]] - f(n) = 22 + 7 = 29
[[2,8,7][5,0,4][3,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[2,7,4][5,1,0][3,6,8]]
Generated Nodes:
[[2,7,0][5,1,4][3,6,8]] - f(n) = 22 + 8 = 30
[[2,7,4][5,0,1][3,6,8]] - f(n) = 22 + 8 = 30
[[2,7,4][5,1,8][3,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[2,7,4][0,1,8][5,3,6]]
Generated Nodes:
[[0,7,4][2,1,8][5,3,6]] - f(n) = 22 + 8 = 30
[[2,7,4][1,0,8][5,3,6]] - f(n) = 22 + 8 = 30
[[2,7,4][5,1,8][0,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,8,2][7,0,6][4,5,1]]
```

```
Generated Nodes:
```

```
[[3,0,2][7,8,6][4,5,1]] - f(n) = 23 + 7 = 30

[[3,8,2][7,6,0][4,5,1]] - f(n) = 23 + 8 = 31

[[3,8,2][0,7,6][4,5,1]] - Already visited Node!

[[3,8,2][7,5,6][4,0,1]] - f(n) = 23 + 6 = 29
```

Node Chosen for Level 23 - [[7,3,2][8,0,6][4,5,1]]

Generated Nodes:

[[7,0,2][8,3,6][4,5,1]] - Already visited Node!

$$[[7,3,2][8,6,0][4,5,1]] - f(n) = 23 + 8 = 31$$

$$[[7,3,2][0,8,6][4,5,1]] - f(n) = 23 + 7 = 30$$

$$[[7,3,2][8,5,6][4,0,1]] - f(n) = 23 + 6 = 29$$

Node Chosen for Level 23 - [[7,2,1][3,8,4][5,6,0]]

Generated Nodes:

```
[[7,2,1][3,8,0][5,6,4]] - f(n) = 23 + 7 = 30
[[7,2,1][3,8,4][5,0,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[4,0,5][3,8,2][1,7,6]]

Generated Nodes:

```
[[4,5,0][3,8,2][1,7,6]] - f(n) = 22 + 8 = 30

[[0,4,5][3,8,2][1,7,6]] - f(n) = 22 + 8 = 30

[[4,8,5][3,0,2][1,7,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[4,8,5][3,2,0][1,7,6]]

Generated Nodes:

```
[[4,8,0][3,2,5][1,7,6]] - f(n) = 22 + 8 = 30

[[4,8,5][3,0,2][1,7,6]] - Already visited Node!

[[4,8,5][3,2,6][1,7,0]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[4,8,5][0,3,2][1,7,6]]

Generated Nodes:

```
[[0,8,5][4,3,2][1,7,6]] - f(n) = 22 + 7 = 29

[[4,8,5][3,0,2][1,7,6]] - Already visited Node!

[[4,8,5][1,3,2][0,7,6]] - f(n) = 22 + 8 = 30
```

Node Chosen for Level 22 - [[4,8,5][3,7,0][1,6,2]]

Generated Nodes:

```
[[4,8,0][3,7,5][1,6,2]] - f(n) = 22 + 8 = 30
[[4,8,5][3,0,7][1,6,2]] - f(n) = 22 + 8 = 30
[[4,8,5][3,7,2][1,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][8,1,0][4,3,6]]
Generated Nodes:
[[7,5,0][8,1,2][4,3,6]] - Already visited Node!
[[7,5,2][8,0,1][4,3,6]] - f(n) = 22 + 8 = 30
[[7,5,2][8,1,6][4,3,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,1,5][8,2,0][4,3,6]]
Generated Nodes:
[[7,1,0][8,2,5][4,3,6]] - f(n) = 22 + 8 = 30
[[7,1,5][8,0,2][4,3,6]] - Already visited Node!
[[7,1,5][8,2,6][4,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,1,5][0,8,2][4,3,6]]
Generated Nodes:
[[0,1,5][7,8,2][4,3,6]] - f(n) = 22 + 8 = 30
[[7,1,5][8,0,2][4,3,6]] - Already visited Node!
[[7,1,5][4,8,2][0,3,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,1,5][8,3,2][4,0,6]]
Generated Nodes:
[[7,1,5][8,0,2][4,3,6]] - Already visited Node!
[[7,1,5][8,3,2][4,6,0]] - f(n) = 22 + 8 = 30
[[7,1,5][8,3,2][0,4,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,5,2][1,7,0][4,3,6]]
Generated Nodes:
[[8,5,0][1,7,2][4,3,6]] - Already visited Node!
[[8,5,2][1,0,7][4,3,6]] - f(n) = 22 + 8 = 30
[[8,5,2][1,7,6][4,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,0,7][1,2,5][4,3,6]]
Generated Nodes:
[[8,7,0][1,2,5][4,3,6]] - Already visited Node!
[[0,8,7][1,2,5][4,3,6]] - f(n) = 22 + 8 = 30
[[8,2,7][1,0,5][4,3,6]] - Already visited Node!
```

```
Node Chosen for Level 22 - [[8,7,5][1,3,0][4,6,2]]
Generated Nodes:
[[8,7,0][1,3,5][4,6,2]] - f(n) = 22 + 8 = 30
[[8,7,5][1,0,3][4,6,2]] - f(n) =
                                  22 + 8 = 30
[[8,7,5][1,3,2][4,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,4][0,6,5][3,2,1]]
Generated Nodes:
[[0,7,4][8,6,5][3,2,1]] - Already visited Node!
[[8,7,4][6,0,5][3,2,1]] - f(n) = 22 + 8 = 30
[[8,7,4][3,6,5][0,2,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,4][0,8,5][3,2,1]]
Generated Nodes:
[[0,6,4][7,8,5][3,2,1]] - f(n) = 22 + 8 = 30
[[7,6,4][8,0,5][3,2,1]] - Already visited Node!
[[7,6,4][3,8,5][0,2,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,4][8,2,5][3,0,1]]
Generated Nodes:
[[7,6,4][8,0,5][3,2,1]] - Already visited Node!
[[7,6,4][8,2,5][3,1,0]] - f(n) = 22 + 8 = 30
[[7,6,4][8,2,5][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,8][0,6,2][3,4,1]]
Generated Nodes:
[[0,5,8][7,6,2][3,4,1]] - Already visited Node!
[[7,5,8][6,0,2][3,4,1]] - f(n) = 22 + 8 = 30
[[7,5,8][3,6,2][0,4,1]] - f(n) =
                                  22 + 8 = 30
Node Chosen for Level 22 - [[5,6,8][7,2,0][3,4,1]]
Generated Nodes:
[[5,6,0][7,2,8][3,4,1]] - Already visited Node!
[[5,6,8][7,0,2][3,4,1]] - Already visited Node!
[[5,6,8][7,2,1][3,4,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,8][0,7,2][3,4,1]]
Generated Nodes:
```

```
[[0,6,8][5,7,2][3,4,1]] - f(n) = 22 + 8 = 30
[[5,6,8][7,0,2][3,4,1]] - Already visited Node!
[[5,6,8][3,7,2][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,8][7,4,2][3,0,1]]
Generated Nodes:
[[5,6,8][7,0,2][3,4,1]] - Already visited Node!
[[5,6,8][7,4,2][3,1,0]] - f(n) = 22 + 8 = 30
[[5,6,8][7,4,2][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,4][2,1,0][8,3,6]]
Generated Nodes:
[[7,5,0][2,1,4][8,3,6]] - f(n) = 22 + 8 = 30
[[7,5,4][2,0,1][8,3,6]] - Already visited Node!
[[7,5,4][2,1,6][8,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,4][2,3,1][8,0,6]]
Generated Nodes:
[[7,5,4][2,0,1][8,3,6]] - Already visited Node!
[[7,5,4][2,3,1][8,6,0]] - f(n) = 22 + 8 = 30
[[7,5,4][2,3,1][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,4][8,2,1][3,0,6]]
Generated Nodes:
[[7,5,4][8,0,1][3,2,6]] - f(n) = 22 + 8 = 30
[[7,5,4][8,2,1][3,6,0]] - f(n) = 22 + 8 = 30
[[7,5,4][8,2,1][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,6,5][1,2,0][8,4,3]]
Generated Nodes:
[[7,6,0][1,2,5][8,4,3]] - f(n) = 22 + 8 = 30
[[7,6,5][1,0,2][8,4,3]] - Already visited Node!
[[7,6,5][1,2,3][8,4,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,5][0,1,2][8,4,3]]
Generated Nodes:
[[0,6,5][7,1,2][8,4,3]] - f(n) = 22 + 8 = 30
[[7,6,5][1,0,2][8,4,3]] - Already visited Node!
[[7,6,5][8,1,2][0,4,3]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[7,6,5][1,4,2][8,0,3]]
Generated Nodes:
[[7,6,5][1,0,2][8,4,3]] - Already visited Node!
[[7,6,5][1,4,2][8,3,0]] - f(n) = 22 + 8 = 30
[[7,6,5][1,4,2][0,8,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 23 - [[1,4,7][8,0,2][3,5,6]]
Generated Nodes:
[[1,0,7][8,4,2][3,5,6]] - Already visited Node!
[[1,4,7][8,2,0][3,5,6]] - f(n) = 23 + 7 = 30
[[1,4,7][0,8,2][3,5,6]] - f(n) = 23 + 7 = 30
[[1,4,7][8,5,2][3,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,7,2][3,8,4][5,6,0]]
Generated Nodes:
[[1,7,2][3,8,0][5,6,4]] - f(n) = 23 + 7 = 30
[[1,7,2][3,8,4][5,0,6]] - Already visited Node!
Node Chosen for Level 24 - [[8,5,4][2,3,6][7,0,1]]
Generated Nodes:
[[8,5,4][2,0,6][7,3,1]] - Already visited Node!
[[8,5,4][2,3,6][7,1,0]] - f(n) = 24 + 6 = 30
[[8,5,4][2,3,6][0,7,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,2,4][8,1,0][7,6,3]]
Generated Nodes:
[[5,2,0][8,1,4][7,6,3]] - f(n) = 24 + 6 = 30
[[5,2,4][8,0,1][7,6,3]] - Already visited Node!
[[5,2,4][8,1,3][7,6,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,4][0,8,1][7,6,3]]
Generated Nodes:
[[0,2,4][5,8,1][7,6,3]] - f(n) = 24 + 6 = 30
[[5,2,4][8,0,1][7,6,3]] - Already visited Node!
[[5,2,4][7,8,1][0,6,3]] - f(n) = 24 + 7 = 31
Node Chosen for Level 23 - [[7,2,8][1,0,5][6,3,4]]
Generated Nodes:
```

```
[[7,0,8][1,2,5][6,3,4]] - f(n) = 23 + 8 = 31
[[7,2,8][1,5,0][6,3,4]] - Already visited Node!
[[7,2,8][0,1,5][6,3,4]] - f(n) = 23 + 7 = 30
[[7,2,8][1,3,5][6,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,8][1,3,5][6,4,0]]
Generated Nodes:
[[7,2,8][1,3,0][6,4,5]] - f(n) = 23 + 7 = 30
[[7,2,8][1,3,5][6,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][3,6,8][1,4,5]]
Generated Nodes:
[[7,0,2][3,6,8][1,4,5]] - f(n) = 23 + 8 = 31
[[7,2,8][3,6,0][1,4,5]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,8][7,6,5][3,1,4]]
Generated Nodes:
[[2,0,8][7,6,5][3,1,4]] - f(n) = 23 + 8 = 31
[[7,2,8][0,6,5][3,1,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,8][6,0,5][3,1,4]]
Generated Nodes:
[[7,0,8][6,2,5][3,1,4]] - f(n) = 23 + 8 = 31
[[7,2,8][6,5,0][3,1,4]] - Already visited Node!
[[7,2,8][0,6,5][3,1,4]] - Already visited Node!
[[7,2,8][6,1,5][3,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[5,2,4][1,7,6][3,0,8]]
Generated Nodes:
[[5,2,4][1,0,6][3,7,8]] - f(n) = 24 + 6 = 30
[[5,2,4][1,7,6][3,8,0]] - f(n) = 24 + 5 = 29
[[5,2,4][1,7,6][0,3,8]] - Already visited Node!
Node Chosen for Level 24 - [[7,6,5][4,2,0][1,8,3]]
Generated Nodes:
[[7,6,0][4,2,5][1,8,3]] - f(n) = 24 + 6 = 30
[[7,6,5][4,0,2][1,8,3]] - Already visited Node!
[[7,6,5][4,2,3][1,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,6][0,5,8][3,1,4]]
```

```
Generated Nodes:
```

```
[[0,2,6][7,5,8][3,1,4]] - f(n) = 24 + 6 = 30

[[7,2,6][5,0,8][3,1,4]] - f(n) = 24 + 7 = 31

[[7,2,6][3,5,8][0,1,4]] - Already visited Node!
```

Node Chosen for Level 24 - [[5,6,8][4,2,0][7,3,1]]

Generated Nodes:

```
[[5,6,0][4,2,8][7,3,1]] - f(n) = 24 + 6 = 30

[[5,6,8][4,0,2][7,3,1]] - Already visited Node!

[[5,6,8][4,2,1][7,3,0]] - f(n) = 24 + 6 = 30
```

Node Chasen for Lovel 24 [[5 6 0][4 2 2][7 0 1]]

Node Chosen for Level 24 - [[5,6,8][4,3,2][7,0,1]]

Generated Nodes:

```
[[5,6,8][4,0,2][7,3,1]] - Already visited Node! [[5,6,8][4,3,2][7,1,0]] - f(n) = 24 + 6 = 30 [[5,6,8][4,3,2][0,7,1]] - f(n) = 24 + 7 = 31
```

Node Chosen for Level 24 - [[5,0,2][4,8,1][7,6,3]]

Generated Nodes:

Generated Nodes :

```
[[5,2,0][4,8,1][7,6,3]] - f(n) = 24 + 5 = 29

[[0,5,2][4,8,1][7,6,3]] - f(n) = 24 + 6 = 30

[[5,8,2][4,0,1][7,6,3]] - Already visited Node!
```

Node Chosen for Level 24 - [[5,8,2][4,1,0][7,6,3]]

Generated Nodes:

```
[[5,8,0][4,1,2][7,6,3]] - f(n) = 24 + 6 = 30

[[5,8,2][4,0,1][7,6,3]] - Already visited Node!

[[5,8,2][4,1,3][7,6,0]] - f(n) = 24 + 6 = 30
```

Node Chases for Lovel 22 [[2 4 8][2 7 5][1 9 6]]

Node Chosen for Level 23 - [[3,4,0][2,7,5][1,8,6]]

Generated Nodes :

```
[[3,0,4][2,7,5][1,8,6]] - Already visited Node! [[3,4,5][2,7,0][1,8,6]] - f(n) = 23 + 7 = 30
```

Node Chosen for Level 23 - [[0,3,4][2,7,5][1,8,6]]

```
[[3,0,4][2,7,5][1,8,6]] - Already visited Node! [[2,3,4][0,7,5][1,8,6]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[0,2,4][7,3,8][1,6,5]]
Generated Nodes:
[[2,0,4][7,3,8][1,6,5]] - f(n) = 23 + 8 = 31
[[7,2,4][0,3,8][1,6,5]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,4][1,3,8][0,6,5]]
Generated Nodes:
[[7,2,4][0,3,8][1,6,5]] - Already visited Node!
[[7,2,4][1,3,8][6,0,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,4][3,6,8][0,1,5]]
Generated Nodes:
[[7,2,4][0,6,8][3,1,5]] - f(n) = 23 + 7 = 30
[[7,2,4][3,6,8][1,0,5]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,4][0,1,6][5,3,8]]
Generated Nodes:
[[0,2,4][7,1,6][5,3,8]] - f(n) = 24 + 6 = 30
[[7,2,4][1,0,6][5,3,8]] - Already visited Node!
[[7,2,4][5,1,6][0,3,8]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,6][4,1,3][8,0,5]]
Generated Nodes:
[[7,2,6][4,0,3][8,1,5]] - Already visited Node!
[[7,2,6][4,1,3][8,5,0]] - Already visited Node!
[[7,2,6][4,1,3][0,8,5]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[0,3,7][1,5,2][8,6,4]]
Generated Nodes:
[[3,0,7][1,5,2][8,6,4]] - Already visited Node!
[[1,3,7][0,5,2][8,6,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 22 - [[5,8,7][0,1,2][3,6,4]]
Generated Nodes:
[[0,8,7][5,1,2][3,6,4]] - Already visited Node!
[[5,8,7][1,0,2][3,6,4]] - f(n) = 22 + 8 = 30
[[5,8,7][3,1,2][0,6,4]] - f(n) = 22 + 8 = 30
```

```
Node Chosen for Level 22 - [[8,1,7][5,2,0][3,6,4]]
Generated Nodes:
[[8,1,0][5,2,7][3,6,4]] - f(n) = 22 + 8 = 30
[[8,1,7][5,0,2][3,6,4]] - Already visited Node!
[[8,1,7][5,2,4][3,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,1,7][5,6,2][3,0,4]]
Generated Nodes:
[[8,1,7][5,0,2][3,6,4]] - Already visited Node!
[[8,1,7][5,6,2][3,4,0]] - f(n) = 22 + 8 = 30
[[8,1,7][5,6,2][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,2][8,6,1][5,3,4]]
Generated Nodes:
[[7,2,0][8,6,1][5,3,4]] - f(n) = 22 + 7 = 29
[[0,7,2][8,6,1][5,3,4]] - Already visited Node!
[[7,6,2][8,0,1][5,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,0,2][6,7,1][5,3,4]]
Generated Nodes:
[[8,2,0][6,7,1][5,3,4]] - f(n) = 22 + 7 = 29
[[0,8,2][6,7,1][5,3,4]] - f(n) = 22 + 8 = 30
[[8,7,2][6,0,1][5,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,2][6,1,0][5,3,4]]
Generated Nodes:
[[8,7,0][6,1,2][5,3,4]] - f(n) = 22 + 8 = 30
[[8,7,2][6,0,1][5,3,4]] - Already visited Node!
[[8,7,2][6,1,4][5,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,2][6,3,1][5,0,4]]
Generated Nodes:
[[8,7,2][6,0,1][5,3,4]] - Already visited Node!
[[8,7,2][6,3,1][5,4,0]] - f(n) = 22 + 8 = 30
[[8,7,2][6,3,1][0,5,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,3,0][4,2,5][8,1,6]]
Generated Nodes:
```

```
[[7,0,3][4,2,5][8,1,6]] - Already visited Node!
[[7,3,5][4,2,0][8,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,3,5][4,1,2][8,6,0]]
Generated Nodes:
[[7,3,5][4,1,0][8,6,2]] - f(n) = 23 + 7 = 30
[[7,3,5][4,1,2][8,0,6]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,4][0,8,6][5,1,3]]
Generated Nodes:
[[0,2,4][7,8,6][5,1,3]] - f(n) = 24 + 6 = 30
[[7,2,4][8,0,6][5,1,3]] - Already visited Node!
[[7,2,4][5,8,6][0,1,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][3,0,8][4,7,1]]
Generated Nodes:
[[5,0,6][3,2,8][4,7,1]] - f(n) = 23 + 8 = 31
[[5,2,6][3,8,0][4,7,1]] - f(n) = 23 + 7 = 30
[[5,2,6][0,3,8][4,7,1]] - f(n) = 23 + 7 = 30
[[5,2,6][3,7,8][4,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][3,7,8][4,1,0]]
Generated Nodes:
[[5,2,6][3,7,0][4,1,8]] - f(n) = 23 + 7 = 30
[[5,2,6][3,7,8][4,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][7,0,4][3,1,8]]
Generated Nodes:
[[5,0,6][7,2,4][3,1,8]] - f(n) = 23 + 8 = 31
[[5,2,6][7,4,0][3,1,8]] - Already visited Node!
[[5,2,6][0,7,4][3,1,8]] - f(n) = 23 + 7 = 30
[[5,2,6][7,1,4][3,0,8]] - f(n) =
                                  23 + 7 = 30
Node Chosen for Level 23 - [[3,7,5][6,0,2][4,8,1]]
Generated Nodes:
[[3,0,5][6,7,2][4,8,1]] - f(n) = 23 + 7 = 30
[[3,7,5][6,2,0][4,8,1]] - f(n) = 23 + 7 = 30
[[3,7,5][0,6,2][4,8,1]] - Already visited Node!
[[3,7,5][6,8,2][4,0,1]] - f(n) = 23 + 8 = 31
```

```
Node Chosen for Level 23 - [[7,6,0][3,2,5][4,8,1]]
Generated Nodes:
[[7,0,6][3,2,5][4,8,1]] - Already visited Node!
[[7,6,5][3,2,0][4,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,6,5][3,2,1][4,8,0]]
Generated Nodes:
[[7,6,5][3,2,0][4,8,1]] - Already visited Node!
[[7,6,5][3,2,1][4,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,6,5][7,3,2][4,8,1]]
Generated Nodes:
[[6,0,5][7,3,2][4,8,1]] - f(n) = 23 + 7 = 30
[[7,6,5][0,3,2][4,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][8,0,4][3,7,1]]
Generated Nodes:
[[5,0,6][8,2,4][3,7,1]] - f(n) = 23 + 8 = 31
[[5,2,6][8,4,0][3,7,1]] - f(n) = 23 + 7 = 30
[[5,2,6][0,8,4][3,7,1]] - f(n) = 23 + 7 = 30
[[5,2,6][8,7,4][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][8,7,4][3,1,0]]
Generated Nodes:
[[5,2,6][8,7,0][3,1,4]] - f(n) = 23 + 7 = 30
[[5,2,6][8,7,4][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][7,0,3][8,1,4]]
Generated Nodes:
[[5,0,6][7,2,3][8,1,4]] - f(n) = 23 + 8 = 31
[[5,2,6][7,3,0][8,1,4]] - Already visited Node!
[[5,2,6][0,7,3][8,1,4]] - f(n) = 23 + 7 = 30
[[5,2,6][7,1,3][8,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,6][7,1,3][8,4,0]]
Generated Nodes:
[[5,2,6][7,1,0][8,4,3]] - Already visited Node!
```

```
[[5,2,6][7,1,3][8,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,2,6][5,7,1][8,4,3]]
Generated Nodes:
[[2,0,6][5,7,1][8,4,3]] - f(n) = 23 + 8 = 31
[[5,2,6][0,7,1][8,4,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,6][8,7,1][0,4,3]]
Generated Nodes:
[[5,2,6][0,7,1][8,4,3]] - Already visited Node!
[[5,2,6][8,7,1][4,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,6][3,0,8][4,1,5]]
Generated Nodes:
[[7,0,6][3,2,8][4,1,5]] - f(n) = 23 + 8 = 31
[[7,2,6][3,8,0][4,1,5]] - Already visited Node! [[7,2,6][0,3,8][4,1,5]] - f(n) = 23 + 7 = 30
[[7,2,6][3,1,8][4,0,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,2,6][7,8,4][3,1,5]]
Generated Nodes:
[[2,0,6][7,8,4][3,1,5]] - f(n) = 23 + 8 = 31
[[7,2,6][0,8,4][3,1,5]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,6][3,8,4][0,1,5]]
Generated Nodes:
[[7,2,6][0,8,4][3,1,5]] - Already visited Node!
[[7,2,6][3,8,4][1,0,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,6][8,1,4][0,3,5]]
Generated Nodes:
[[7,2,6][0,1,4][8,3,5]] - f(n) = 23 + 7 = 30
[[7,2,6][8,1,4][3,0,5]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,5][2,8,4][3,1,6]]
Generated Nodes:
[[7,5,0][2,8,4][3,1,6]] - Already visited Node!
[[0,7,5][2,8,4][3,1,6]] - f(n) = 22 + 8 = 30
```

```
[[7,8,5][2,0,4][3,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,4][2,1,0][3,6,8]]
Generated Nodes:
[[7,5,0][2,1,4][3,6,8]] - f(n) = 22 + 8 = 30
[[7,5,4][2,0,1][3,6,8]] - f(n) = 22 + 8 = 30
[[7,5,4][2,1,8][3,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,4][0,1,8][2,3,6]]
Generated Nodes:
[[0,5,4][7,1,8][2,3,6]] - f(n) = 22 + 8 = 30
[[7,5,4][1,0,8][2,3,6]] - f(n) = 22 + 8 = 30
[[7,5,4][2,1,8][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,4][3,8,0][1,2,6]]
Generated Nodes:
[[7,5,0][3,8,4][1,2,6]] - f(n) = 22 + 8 = 30
[[7,5,4][3,0,8][1,2,6]] - Already visited Node!
[[7,5,4][3,8,6][1,2,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,4][0,3,8][1,2,6]]
Generated Nodes:
[[0,5,4][7,3,8][1,2,6]] - f(n) = 22 + 8 = 30
[[7,5,4][3,0,8][1,2,6]] - Already visited Node!
[[7,5,4][1,3,8][0,2,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,4][3,2,0][1,6,8]]
Generated Nodes:
[[7,5,0][3,2,4][1,6,8]] - f(n) = 22 + 8 = 30
[[7,5,4][3,0,2][1,6,8]] - f(n) = 22 + 8 = 30
[[7,5,4][3,2,8][1,6,0]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,2][8,0,6][5,3,1]]
Generated Nodes:
[[7,0,2][8,4,6][5,3,1]] - Already visited Node!
[[7,4,2][8,6,0][5,3,1]] - f(n) = 23 + 8 = 31
[[7,4,2][0,8,6][5,3,1]] - f(n) = 23 + 7 = 30
[[7,4,2][8,3,6][5,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,3,7][1,4,2][0,8,6]]
```

```
Generated Nodes:
[[5,3,7][0,4,2][1,8,6]] - Already visited Node!
[[5,3,7][1,4,2][8,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[3,4,0][5,2,7][1,8,6]]
Generated Nodes:
[[3,0,4][5,2,7][1,8,6]] - Already visited Node!
[[3,4,7][5,2,0][1,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][3,8,1][6,4,5]]
Generated Nodes:
[[7,0,2][3,8,1][6,4,5]] - f(n) = 23 + 8 = 31
[[7,2,1][3,8,0][6,4,5]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,1][3,0,8][6,4,5]]
Generated Nodes:
[[7,0,1][3,2,8][6,4,5]] - f(n) = 23 + 8 = 31
[[7,2,1][3,8,0][6,4,5]] - Already visited Node! [[7,2,1][0,3,8][6,4,5]] - f(n) = 23 + 7 = 30
[[7,2,1][3,4,8][6,0,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,1][6,3,5][8,4,0]]
Generated Nodes:
[[7,2,1][6,3,0][8,4,5]] - f(n) = 23 + 7 = 30
[[7,2,1][6,3,5][8,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][8,1,4][3,6,5]]
Generated Nodes:
[[7,0,2][8,1,4][3,6,5]] - f(n) = 23 + 8 = 31
[[7,2,4][8,1,0][3,6,5]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,4][8,0,1][3,6,5]]
```

Generated Nodes:

```
[[7,0,4][8,2,1][3,6,5]] - f(n) = 23 + 8 = 31

[[7,2,4][8,1,0][3,6,5]] - Already visited Node!

[[7,2,4][0,8,1][3,6,5]] - f(n) = 23 + 7 = 30

[[7,2,4][8,6,1][3,0,5]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[0,2,4][7,1,3][8,6,5]]
Generated Nodes:
[[2,0,4][7,1,3][8,6,5]] - f(n) = 23 + 8 = 31
[[7,2,4][0,1,3][8,6,5]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,4][8,1,3][0,6,5]]
Generated Nodes:
[[7,2,4][0,1,3][8,6,5]] - Already visited Node!
[[7,2,4][8,1,3][6,0,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,4,0][5,2,7][8,3,6]]
Generated Nodes:
[[1,0,4][5,2,7][8,3,6]] - Already visited Node!
[[1,4,7][5,2,0][8,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,4,7][5,3,2][8,6,0]]
Generated Nodes:
[[1,4,7][5,3,0][8,6,2]] - f(n) = 23 + 7 = 30
[[1,4,7][5,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,3,7][5,0,2][8,6,4]]
Generated Nodes:
[[1,0,7][5,3,2][8,6,4]] - Already visited Node!
[[1,3,7][5,2,0][8,6,4]] - f(n) = 23 + 7 = 30
[[1,3,7][0,5,2][8,6,4]] - f(n) = 23 + 6 = 29
[[1,3,7][5,6,2][8,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,7,2][5,6,3][8,4,0]]
Generated Nodes:
[[1,7,2][5,6,0][8,4,3]] - Already visited Node!
[[1,7,2][5,6,3][8,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,6,5][4,0,1][8,2,3]]
Generated Nodes:
[[7,0,5][4,6,1][8,2,3]] - f(n) = 23 + 7 = 30
[[7,6,5][4,1,0][8,2,3]] - f(n) = 23 + 7 = 30
[[7,6,5][0,4,1][8,2,3]] - f(n) = 23 + 8 = 31
[[7,6,5][4,2,1][8,0,3]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[7,6,0][4,3,5][8,1,2]]
Generated Nodes:
[[7,0,6][4,3,5][8,1,2]] - f(n) = 23 + 7 = 30
[[7,6,5][4,3,0][8,1,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,6,5][4,0,3][8,1,2]]
Generated Nodes:
[[7,0,5][4,6,3][8,1,2]] - f(n) = 23 + 7 = 30
[[7,6,5][4,3,0][8,1,2]] - Already visited Node!
[[7,6,5][0,4,3][8,1,2]] - f(n) = 23 + 8 = 31
[[7,6,5][4,1,3][8,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,5][4,1,2][8,6,3]]
Generated Nodes:
[[7,0,5][4,1,2][8,6,3]] - Already visited Node!
[[4,7,5][0,1,2][8,6,3]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[7,1,5][4,0,2][8,6,3]]
Generated Nodes:
[[7,0,5][4,1,2][8,6,3]] - Already visited Node!
[[7,1,5][4,2,0][8,6,3]] - f(n) = 23 + 7 = 30
[[7,1,5][0,4,2][8,6,3]] - f(n) = 23 + 8 = 31
[[7,1,5][4,6,2][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,3,2][5,7,6][1,4,8]]
Generated Nodes:
[[3,0,2][5,7,6][1,4,8]] - Already visited Node!
[[5,3,2][0,7,6][1,4,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,3,2][1,7,6][0,4,8]]
Generated Nodes:
[[5,3,2][0,7,6][1,4,8]] - Already visited Node!
[[5,3,2][1,7,6][4,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,2][7,1,6][4,3,8]]
Generated Nodes:
[[5,0,2][7,1,6][4,3,8]] - f(n) = 23 + 7 = 30
```

```
[[7,5,2][0,1,6][4,3,8]] - Already visited Node!
Node Chosen for Level 23 - [[0,4,2][5,7,6][3,1,8]]
Generated Nodes:
[[4,0,2][5,7,6][3,1,8]] - f(n) = 23 + 7 = 30
[[5,4,2][0,7,6][3,1,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,2][3,7,6][0,1,8]]
Generated Nodes:
[[5,4,2][0,7,6][3,1,8]] - Already visited Node!
[[5,4,2][3,7,6][1,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,2][7,1,6][0,3,8]]
Generated Nodes:
[[5,4,2][0,1,6][7,3,8]] - f(n) = 23 + 6 = 29
[[5,4,2][7,1,6][3,0,8]] - Already visited Node!
Node Chosen for Level 22 - [[8,5,2][6,7,0][3,4,1]]
Generated Nodes:
[[8,5,0][6,7,2][3,4,1]] - Already visited Node!
[[8,5,2][6,0,7][3,4,1]] - f(n) = 22 + 8 = 30
[[8,5,2][6,7,1][3,4,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[6,8,5][0,7,2][3,4,1]]
Generated Nodes:
[[0,8,5][6,7,2][3,4,1]] - Already visited Node!
[[6,8,5][7,0,2][3,4,1]] - Already visited Node!
[[6,8,5][3,7,2][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,0,7][6,2,5][3,4,1]]
Generated Nodes:
[[8,7,0][6,2,5][3,4,1]] - Already visited Node!
[[0,8,7][6,2,5][3,4,1]] - f(n) = 22 + 8 = 30
[[8,2,7][6,0,5][3,4,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,5][6,2,1][3,0,4]]
Generated Nodes:
[[8,7,5][6,0,1][3,2,4]] - f(n) = 22 + 8 = 30
```

```
[[8,7,5][6,2,1][3,4,0]] - Already visited Node!
[[8,7,5][6,2,1][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,5][6,4,0][3,1,2]]
Generated Nodes:
[[8,7,0][6,4,5][3,1,2]] - f(n) = 22 + 8 = 30
[[8,7,5][6,0,4][3,1,2]] - f(n) = 22 + 8 = 30
[[8,7,5][6,4,2][3,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][0,4,2][6,3,1]]
Generated Nodes:
[[0,7,5][8,4,2][6,3,1]] - f(n) = 22 + 8 = 30
[[8,7,5][4,0,2][6,3,1]] - f(n) = 22 + 7 = 29
[[8,7,5][6,4,2][0,3,1]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,5][3,7,2][4,6,1]]
Generated Nodes:
[[8,5,0][3,7,2][4,6,1]] - f(n) = 22 + 8 = 30
[[0,8,5][3,7,2][4,6,1]] - f(n) = 22 + 8 = 30
[[8,7,5][3,0,2][4,6,1]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][3,2,0][4,6,1]]
Generated Nodes:
[[8,7,0][3,2,5][4,6,1]] - f(n) = 22 + 8 = 30
[[8,7,5][3,0,2][4,6,1]] - Already visited Node!
[[8,7,5][3,2,1][4,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,5][0,3,2][4,6,1]]
Generated Nodes:
[[0,7,5][8,3,2][4,6,1]] - f(n) = 22 + 8 = 30
[[8,7,5][3,0,2][4,6,1]] - Already visited Node!
[[8,7,5][4,3,2][0,6,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,5][3,6,0][4,1,2]]
Generated Nodes:
[[8,7,0][3,6,5][4,1,2]] - f(n) = 22 + 8 = 30
[[8,7,5][3,0,6][4,1,2]] - f(n) = 22 + 7 = 29
[[8,7,5][3,6,2][4,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,5][8,6,1][3,2,4]]
```

```
Generated Nodes:
[[7,5,0][8,6,1][3,2,4]] - f(n) = 22 + 8 = 30
[[0,7,5][8,6,1][3,2,4]] - f(n) = 22 + 8 = 30
[[7,6,5][8,0,1][3,2,4]] - Already visited Node!
```

Node Chosen for Level 22 - [[7,6,5][8,1,0][3,2,4]]

Generated Nodes:

[[7,6,0][8,1,5][3,2,4]] - f(n) = 22 + 8 = 30[[7,6,5][8,0,1][3,2,4]] - Already visited Node! [[7,6,5][8,1,4][3,2,0]] - f(n) = 22 + 8 = 30

Node Chosen for Level 22 - [[7,6,5][0,8,1][3,2,4]]

Generated Nodes:

[[0,6,5][7,8,1][3,2,4]] - f(n) = 22 + 8 = 30[[7,6,5][8,0,1][3,2,4]] - Already visited Node! [[7,6,5][3,8,1][0,2,4]] - f(n) = 22 + 8 = 30

Node Chosen for Level 22 - [[7,6,5][0,2,1][8,3,4]]

Generated Nodes:

[[0,6,5][7,2,1][8,3,4]] - f(n) = 22 + 8 = 30[[7,6,5][2,0,1][8,3,4]] - f(n) = 22 + 8 = 30[[7,6,5][8,2,1][0,3,4]] - Already visited Node!

Node Chosen for Level 22 - [[6,5,2][7,8,0][3,4,1]]

Generated Nodes:

[[6,5,0][7,8,2][3,4,1]] - Already visited Node! [[6,5,2][7,0,8][3,4,1]] - f(n) = 22 + 8 = 30[[6,5,2][7,8,1][3,4,0]] - f(n) = 22 + 8 = 30

Node Chosen for Level 22 - [[6,8,5][7,2,0][3,4,1]]

Generated Nodes:

[[6,8,0][7,2,5][3,4,1]] - f(n) = 22 + 8 = 30[[6,8,5][7,0,2][3,4,1]] - Already visited Node! [[6,8,5][7,2,1][3,4,0]] - f(n) = 22 + 8 = 30

Node Chosen for Level 22 - [[6,8,5][0,7,2][3,4,1]]

Generated Nodes:

[[0,8,5][6,7,2][3,4,1]] - Already visited Node!

```
[[6,8,5][7,0,2][3,4,1]] - Already visited Node!
[[6,8,5][3,7,2][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[6,8,5][7,4,2][3,0,1]]
Generated Nodes:
[[6,8,5][7,0,2][3,4,1]] - Already visited Node!
[[6,8,5][7,4,2][3,1,0]] - f(n) = 22 + 8 = 30
[[6,8,5][7,4,2][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,5][3,8,0][4,1,2]]
Generated Nodes:
[[7,6,0][3,8,5][4,1,2]] - f(n) = 22 + 8 = 30
[[7,6,5][3,0,8][4,1,2]] - f(n) = 22 + 8 = 30
[[7,6,5][3,8,2][4,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,6][8,4,5][3,1,2]]
Generated Nodes:
[[7,6,0][8,4,5][3,1,2]] - Already visited Node!
[[0,7,6][8,4,5][3,1,2]] - f(n) = 22 + 8 = 30
[[7,4,6][8,0,5][3,1,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][8,6,4][3,1,2]]
Generated Nodes:
[[7,5,0][8,6,4][3,1,2]] - f(n) = 22 + 8 = 30
[[0,7,5][8,6,4][3,1,2]] - f(n) = 22 + 8 = 30
[[7,6,5][8,0,4][3,1,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,6,5][0,8,4][3,1,2]]
Generated Nodes:
[[0,6,5][7,8,4][3,1,2]] - f(n) = 22 + 8 = 30
[[7,6,5][8,0,4][3,1,2]] - Already visited Node!
[[7,6,5][3,8,4][0,1,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,5][8,1,4][3,0,2]]
Generated Nodes:
[[7,6,5][8,0,4][3,1,2]] - Already visited Node!
[[7,6,5][8,1,4][3,2,0]] - f(n) = 22 + 8 = 30
[[7,6,5][8,1,4][0,3,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[6,0,5][7,4,2][8,3,1]]
```

Node Chosen for Level 22 - [[8,5,2][0,3,7][1,4,6]]

Generated Nodes:

```
[[0,5,2][8,3,7][1,4,6]] - f(n) = 22 + 8 = 30

[[8,5,2][3,0,7][1,4,6]] - Already visited Node!

[[8,5,2][1,3,7][0,4,6]] - f(n) = 22 + 8 = 30
```

Node Character Lavel 22 [[0.5.21[2.4.7][1.0.6]]

Node Chosen for Level 22 - [[8,5,2][3,4,7][1,0,6]]

Generated Nodes:

```
[[8,5,2][3,0,7][1,4,6]] - Already visited Node! [[8,5,2][3,4,7][1,6,0]] - f(n) = 22 + 8 = 30 [[8,5,2][3,4,7][0,1,6]] - Already visited Node!
```

Nada Charan fan Lawil 22 - [[2 0 5] [7 0 2] [1 4 6]]

Node Chosen for Level 22 - [[3,0,5][7,8,2][1,4,6]]

Generated Nodes:

```
[[3,5,0][7,8,2][1,4,6]] - f(n) = 22 + 8 = 30

[[0,3,5][7,8,2][1,4,6]] - f(n) = 22 + 8 = 30

[[3,8,5][7,0,2][1,4,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[3,8,5][7,2,0][1,4,6]]

Generated Nodes:

```
[[3,8,0][7,2,5][1,4,6]] - f(n) = 22 + 8 = 30

[[3,8,5][7,0,2][1,4,6]] - Already visited Node!

[[3,8,5][7,2,6][1,4,0]] - f(n) = 22 + 7 = 29
```

Node Chosen for Level 22 - [[3,8,5][7,4,2][1,0,6]]

Generated Nodes:

[[3,8,5][7,0,2][1,4,6]] - Already visited Node! [[3,8,5][7,4,2][1,6,0]] - f(n) = 22 + 8 = 30 [[3,8,5][7,4,2][0,1,6]] - f(n) = 22 + 8 = 30

Node Chosen for Level 22 - [[3,8,5][1,7,2][4,0,6]]

$$[[3,8,5][1,0,2][4,7,6]] - f(n) = 22 + 8 = 30$$

```
[[3,8,5][1,7,2][4,6,0]] - f(n) = 22 + 8 = 30
[[3,8,5][1,7,2][0,4,6]] - Already visited Node!
Node Chosen for Level 22 - [[3,8,7][0,2,5][1,4,6]]
Generated Nodes:
[[0,8,7][3,2,5][1,4,6]] - Already visited Node!
[[3,8,7][2,0,5][1,4,6]] - f(n) = 22 + 8 = 30
[[3,8,7][1,2,5][0,4,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][8,3,0][1,4,6]]
Generated Nodes:
[[7,5,0][8,3,2][1,4,6]] - Already visited Node!
[[7,5,2][8,0,3][1,4,6]] - f(n) = 22 + 8 = 30
[[7,5,2][8,3,6][1,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,3,5][8,2,0][1,4,6]]
Generated Nodes:
[[7,3,0][8,2,5][1,4,6]] - f(n) = 22 + 8 = 30
[[7,3,5][8,0,2][1,4,6]] - Already visited Node!
[[7,3,5][8,2,6][1,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,3,5][0,8,2][1,4,6]]
Generated Nodes:
[[0,3,5][7,8,2][1,4,6]] - f(n) = 22 + 8 = 30
[[7,3,5][8,0,2][1,4,6]] - Already visited Node!
[[7,3,5][1,8,2][0,4,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,3,5][8,4,2][1,0,6]]
Generated Nodes:
[[7,3,5][8,0,2][1,4,6]] - Already visited Node!
[[7,3,5][8,4,2][1,6,0]] - f(n) = 22 + 8 = 30
[[7,3,5][8,4,2][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,5][1,3,0][4,6,2]]
Generated Nodes:
[[8,7,0][1,3,5][4,6,2]] - f(n) = 22 + 8 = 30
[[8,7,5][1,0,3][4,6,2]] - f(n) = 22 + 8 = 30
[[8,7,5][1,3,2][4,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[3,8,7][0,4,5][1,6,2]]
```

```
Generated Nodes:
[[0,8,7][3,4,5][1,6,2]] - Already visited Node!
[[3,8,7][4,0,5][1,6,2]] - f(n) = 22 + 7 = 29
[[3,8,7][1,4,5][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,4,7][0,3,5][1,6,2]]
Generated Nodes:
[[0,4,7][8,3,5][1,6,2]] - f(n) = 22 + 8 = 30
[[8,4,7][3,0,5][1,6,2]] - Already visited Node!
[[8,4,7][1,3,5][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,4,7][3,6,5][1,0,2]]
Generated Nodes:
[[8,4,7][3,0,5][1,6,2]] - Already visited Node!
[[8,4,7][3,6,5][1,2,0]] - f(n) = 22 + 8 = 30
[[8,4,7][3,6,5][0,1,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,5,4][3,7,0][1,6,2]]
Generated Nodes:
[[8,5,0][3,7,4][1,6,2]] - Already visited Node!
[[8,5,4][3,0,7][1,6,2]] - f(n) = 22 + 8 = 30
[[8,5,4][3,7,2][1,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,8,5][0,7,4][1,6,2]]
Generated Nodes:
[[0,8,5][3,7,4][1,6,2]] - Already visited Node!
[[3,8,5][7,0,4][1,6,2]] - f(n) = 22 + 8 = 30
[[3,8,5][1,7,4][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][8,3,4][1,6,2]]
Generated Nodes:
[[7,5,0][8,3,4][1,6,2]] - f(n) = 22 + 8 = 30
[[0,7,5][8,3,4][1,6,2]] - Already visited Node!
[[7,3,5][8,0,4][1,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,5][1,3,4][6,0,2]]
Generated Nodes:
```

[[8,7,5][1,0,4][6,3,2]] - f(n) = 22 + 8 = 30

```
[[8,7,5][1,3,4][6,2,0]] - f(n) = 22 + 8 = 30
[[8,7,5][1,3,4][0,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][3,6,0][1,2,4]]
Generated Nodes:
[[8,7,0][3,6,5][1,2,4]] - f(n) = 22 + 8 = 30
[[8,7,5][3,0,6][1,2,4]] - Already visited Node!
[[8,7,5][3,6,4][1,2,0]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][0,6,4][3,1,2]]
Generated Nodes:
[[0,7,5][8,6,4][3,1,2]] - f(n) = 22 + 8 = 30
[[8,7,5][6,0,4][3,1,2]] - f(n) = 22 + 8 = 30
[[8,7,5][3,6,4][0,1,2]] - Already visited Node!
Node Chosen for Level 22 - [[8,4,5][2,7,0][3,1,6]]
Generated Nodes:
[[8,4,0][2,7,5][3,1,6]] - Already visited Node!
[[8,4,5][2,0,7][3,1,6]] - f(n) = 22 + 8 = 30
[[8,4,5][2,7,6][3,1,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[2,8,4][0,7,5][3,1,6]]
Generated Nodes:
[[0,8,4][2,7,5][3,1,6]] - Already visited Node!
[[2,8,4][7,0,5][3,1,6]] - f(n) = 22 + 8 = 30
[[2,8,4][3,7,5][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,4][2,1,0][3,6,5]]
Generated Nodes:
[[8,7,0][2,1,4][3,6,5]] - f(n) = 22 + 8 = 30
[[8,7,4][2,0,1][3,6,5]] - f(n) = 22 + 8 = 30
[[8,7,4][2,1,5][3,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,4][0,1,5][2,3,6]]
Generated Nodes:
[[0,7,4][8,1,5][2,3,6]] - f(n) = 22 + 8 = 30
[[8,7,4][1,0,5][2,3,6]] - f(n) = 22 + 8 = 30
[[8,7,4][2,1,5][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,4][3,7,5][1,2,6]]
```

```
Generated Nodes:
```

```
[[8,4,0][3,7,5][1,2,6]] - f(n) = 22 + 8 = 30
[[0,8,4][3,7,5][1,2,6]] - f(n) = 22 + 8 = 30
[[8,7,4][3,0,5][1,2,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[8,7,4][0,3,5][1,2,6]]

Generated Nodes:

```
[[0,7,4][8,3,5][1,2,6]] - f(n) = 22 + 8 = 30
[[8,7,4][3,0,5][1,2,6]] - Already visited Node!
[[8,7,4][1,3,5][0,2,6]] - f(n) = 22 + 8 = 30
```

Node Chosen for Level 22 - [[8,7,4][3,2,0][1,6,5]]

Generated Nodes:

```
[[8,7,0][3,2,4][1,6,5]] - f(n) = 22 + 8 = 30
[[8,7,4][3,0,2][1,6,5]] - f(n) = 22 + 8 = 30
[[8,7,4][3,2,5][1,6,0]] - Already visited Node!
```

Node Chosen for Level 22 - [[4,5,2][3,7,8][1,0,6]]

Generated Nodes:

```
[[4,5,2][3,0,8][1,7,6]] - f(n) = 22 + 8 = 30
[[4,5,2][3,7,8][1,6,0]] - f(n) = 22 + 8 = 30
[[4,5,2][3,7,8][0,1,6]] - Already visited Node!
```

Node Chosen for Level 22 - [[4,5,2][7,1,0][3,6,8]]

Generated Nodes:

```
[[4,5,0][7,1,2][3,6,8]] - f(n) = 22 + 8 = 30
[[4,5,2][7,0,1][3,6,8]] - f(n) = 22 + 8 = 30
[[4,5,2][7,1,8][3,6,0]] - Already visited Node!
```

Node Chosen for Level 22 - [[7,4,8][0,2,5][3,1,6]]

Generated Nodes:

```
[[0,4,8][7,2,5][3,1,6]] - Already visited Node!
[[7,4,8][2,0,5][3,1,6]] - f(n) = 22 + 8 = 30
[[7,4,8][3,2,5][0,1,6]] - f(n) = 22 + 8 = 30
```

Node Chosen for Level 22 - [[4,0,5][3,8,2][1,7,6]]

$$[[4,5,0][3,8,2][1,7,6]] - f(n) = 22 + 8 = 30$$

```
[[0,4,5][3,8,2][1,7,6]] - f(n) = 22 + 8 = 30
[[4,8,5][3,0,2][1,7,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,8,5][3,2,0][1,7,6]]
Generated Nodes:
[[4,8,0][3,2,5][1,7,6]] - f(n) = 22 + 8 = 30
[[4,8,5][3,0,2][1,7,6]] - Already visited Node!
[[4,8,5][3,2,6][1,7,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,8,5][0,3,2][1,7,6]]
Generated Nodes:
[[0,8,5][4,3,2][1,7,6]] - f(n) = 22 + 7 = 29
[[4,8,5][3,0,2][1,7,6]] - Already visited Node!
[[4,8,5][1,3,2][0,7,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,8,5][3,7,0][1,6,2]]
Generated Nodes:
[[4,8,0][3,7,5][1,6,2]] - f(n) = 22 + 8 = 30
[[4,8,5][3,0,7][1,6,2]] - f(n) = 22 + 8 = 30
[[4,8,5][3,7,2][1,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[4,0,8][7,1,5][3,6,2]]
Generated Nodes:
[[4,8,0][7,1,5][3,6,2]] - Already visited Node!
[[0,4,8][7,1,5][3,6,2]] - f(n) = 22 + 8 = 30
[[4,1,8][7,0,5][3,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,8,5][0,7,1][3,6,2]]
Generated Nodes:
[[0,8,5][4,7,1][3,6,2]] - Already visited Node!
[[4,8,5][7,0,1][3,6,2]] - Already visited Node!
[[4,8,5][3,7,1][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,8,5][7,6,1][3,0,2]]
Generated Nodes:
[[4,8,5][7,0,1][3,6,2]] - Already visited Node!
[[4,8,5][7,6,1][3,2,0]] - f(n) = 22 + 8 = 30
[[4,8,5][7,6,1][0,3,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,7,4][0,8,5][1,6,2]]
```

```
Generated Nodes:
[[0,7,4][3,8,5][1,6,2]] - Already visited Node!
[[3,7,4][8,0,5][1,6,2]] - f(n) = 22 + 8 = 30
[[3,7,4][1,8,5][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,8,4][0,3,5][1,6,2]]
Generated Nodes:
[[0,8,4][7,3,5][1,6,2]] - f(n) = 22 + 8 = 30
[[7,8,4][3,0,5][1,6,2]] - Already visited Node!
[[7,8,4][1,3,5][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,8,4][3,6,5][1,0,2]]
Generated Nodes:
[[7,8,4][3,0,5][1,6,2]] - Already visited Node!
[[7,8,4][3,6,5][1,2,0]] - f(n) = 22 + 8 = 30
[[7,8,4][3,6,5][0,1,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,8][3,4,0][1,6,2]]
Generated Nodes:
[[7,5,0][3,4,8][1,6,2]] - Already visited Node!
[[7,5,8][3,0,4][1,6,2]] - f(n) = 22 + 8 = 30
[[7,5,8][3,4,2][1,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,5][0,4,8][1,6,2]]
Generated Nodes:
[[0,7,5][3,4,8][1,6,2]] - Already visited Node!
[[3,7,5][4,0,8][1,6,2]] - Already visited Node!
[[3,7,5][1,4,8][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,0,5][7,3,8][1,6,2]]
Generated Nodes:
[[4,5,0][7,3,8][1,6,2]] - f(n) = 22 + 8 = 30
[[0,4,5][7,3,8][1,6,2]] - Already visited Node!
[[4,3,5][7,0,8][1,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,4,5][1,3,8][6,0,2]]
Generated Nodes:
```

[[7,4,5][1,0,8][6,3,2]] - f(n) = 22 + 8 = 30

```
[[7,4,5][1,3,8][6,2,0]] - f(n) = 22 + 8 = 30
[[7,4,5][1,3,8][0,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][3,6,0][1,2,8]]
Generated Nodes:
[[7,4,0][3,6,5][1,2,8]] - f(n) = 22 + 8 = 30
[[7,4,5][3,0,6][1,2,8]] - Already visited Node!
[[7,4,5][3,6,8][1,2,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][0,6,8][3,1,2]]
Generated Nodes:
[[0,4,5][7,6,8][3,1,2]] - f(n) = 22 + 8 = 30
[[7,4,5][6,0,8][3,1,2]] - f(n) = 22 + 8 = 30
[[7,4,5][3,6,8][0,1,2]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,4][1,7,5][3,6,2]]
Generated Nodes:
[[8,4,0][1,7,5][3,6,2]] - f(n) = 22 + 8 = 30
[[0,8,4][1,7,5][3,6,2]] - f(n) = 22 + 8 = 30
[[8,7,4][1,0,5][3,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,4][1,6,5][3,0,2]]
Generated Nodes:
[[8,7,4][1,0,5][3,6,2]] - Already visited Node!
[[8,7,4][1,6,5][3,2,0]] - f(n) = 22 + 8 = 30
[[8,7,4][1,6,5][0,3,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,4][3,1,5][6,0,2]]
Generated Nodes:
[[8,7,4][3,0,5][6,1,2]] - f(n) = 22 + 8 = 30
[[8,7,4][3,1,5][6,2,0]] - f(n) = 22 + 8 = 30
[[8,7,4][3,1,5][0,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,1,4][3,8,5][6,0,2]]
Generated Nodes:
[[7,1,4][3,0,5][6,8,2]] - f(n) = 22 + 7 = 29
[[7,1,4][3,8,5][6,2,0]] - f(n) = 22 + 8 = 30
[[7,1,4][3,8,5][0,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,1,4][8,6,0][3,2,5]]
```

```
Generated Nodes:
[[7,1,0][8,6,4][3,2,5]] - f(n) = 22 + 8 = 30
[[7,1,4][8,0,6][3,2,5]] - f(n) = 22 + 7 = 29
[[7,1,4][8,6,5][3,2,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,1,4][0,6,5][8,3,2]]
Generated Nodes:
[[0,1,4][7,6,5][8,3,2]] - f(n) = 22 + 8 = 30
[[7,1,4][6,0,5][8,3,2]] - f(n) = 22 + 8 = 30
[[7,1,4][8,6,5][0,3,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,1][0,8,4][3,6,2]]
Generated Nodes:
[[0,5,1][7,8,4][3,6,2]] - f(n) = 22 + 8 = 30
[[7,5,1][8,0,4][3,6,2]] - Already visited Node!
[[7,5,1][3,8,4][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,1][8,6,4][3,0,2]]
Generated Nodes:
[[7,5,1][8,0,4][3,6,2]] - Already visited Node!
[[7,5,1][8,6,4][3,2,0]] - f(n) = 22 + 8 = 30
[[7,5,1][8,6,4][0,3,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,1][8,4,2][3,0,6]]
Generated Nodes:
[[7,5,1][8,0,2][3,4,6]] - f(n) = 22 + 8 = 30
[[7,5,1][8,4,2][3,6,0]] - Already visited Node!
[[7,5,1][8,4,2][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][3,4,1][6,0,2]]
Generated Nodes:
[[8,7,5][3,0,1][6,4,2]] - Already visited Node!
[[8,7,5][3,4,1][6,2,0]] - f(n) = 22 + 8 = 30
[[8,7,5][3,4,1][0,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[4,5,1][7,8,0][3,6,2]]
Generated Nodes:
```

[[4,5,0][7,8,1][3,6,2]] - Already visited Node!

```
[[4,5,1][7,0,8][3,6,2]] - f(n) = 22 + 8 = 30
[[4,5,1][7,8,2][3,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,8,5][0,7,1][3,6,2]]
Generated Nodes:
[[0,8,5][4,7,1][3,6,2]] - Already visited Node!
[[4,8,5][7,0,1][3,6,2]] - Already visited Node!
[[4,8,5][3,7,1][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,8,5][7,6,1][3,0,2]]
Generated Nodes:
[[4,8,5][7,0,1][3,6,2]] - Already visited Node!
[[4,8,5][7,6,1][3,2,0]] - f(n) = 22 + 8 = 30
[[4,8,5][7,6,1][0,3,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,4,5][3,8,0][6,2,1]]
Generated Nodes:
[[7,4,0][3,8,5][6,2,1]] - f(n) = 22 + 8 = 30
[[7,4,5][3,0,8][6,2,1]] - f(n) = 22 + 8 = 30
[[7,4,5][3,8,1][6,2,0]] - Already visited Node!
Node Chosen for Level 22 - [[4,0,5][7,6,1][8,3,2]]
Generated Nodes:
[[4,5,0][7,6,1][8,3,2]] - f(n) = 22 + 8 = 30
[[0,4,5][7,6,1][8,3,2]] - Already visited Node!
[[4,6,5][7,0,1][8,3,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][6,4,1][8,3,2]]
Generated Nodes:
[[7,5,0][6,4,1][8,3,2]] - f(n) = 22 + 8 = 30
[[0,7,5][6,4,1][8,3,2]] - f(n) = 22 + 8 = 30
[[7,4,5][6,0,1][8,3,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][6,1,0][8,3,2]]
Generated Nodes:
[[7,4,0][6,1,5][8,3,2]] - f(n) = 22 + 8 = 30
[[7,4,5][6,0,1][8,3,2]] - Already visited Node!
[[7,4,5][6,1,2][8,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,4,5][6,3,1][8,0,2]]
```

```
Generated Nodes:
[[7,4,5][6,0,1][8,3,2]] - Already visited Node!
[[7,4,5][6,3,1][8,2,0]] - f(n) = 22 + 8 = 30
[[7,4,5][6,3,1][0,8,2]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,5,2][0,7,1][8,3,6]]
Generated Nodes:
[[0,5,2][4,7,1][8,3,6]] - f(n) = 22 + 7 = 29
[[4,5,2][7,0,1][8,3,6]] - Already visited Node!
[[4,5,2][8,7,1][0,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[4,5,2][7,3,1][8,0,6]]
Generated Nodes:
[[4,5,2][7,0,1][8,3,6]] - Already visited Node!
[[4,5,2][7,3,1][8,6,0]] - f(n) = 22 + 8 = 30
[[4,5,2][7,3,1][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,0,1][7,2,5][8,3,6]]
Generated Nodes:
[[4,1,0][7,2,5][8,3,6]] - Already visited Node!
[[0,4,1][7,2,5][8,3,6]] - f(n) = 22 + 8 = 30
[[4,2,1][7,0,5][8,3,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,1,5][8,7,2][3,0,6]]
Generated Nodes:
[[4,1,5][8,0,2][3,7,6]] - f(n) = 22 + 8 = 30
[[4,1,5][8,7,2][3,6,0]] - f(n) = 22 + 8 = 30
[[4,1,5][8,7,2][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,1,5][7,3,0][8,6,2]]
Generated Nodes:
[[4,1,0][7,3,5][8,6,2]] - f(n) = 22 + 8 = 30
[[4,1,5][7,0,3][8,6,2]] - f(n) = 22 + 8 = 30
[[4,1,5][7,3,2][8,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,4][1,3,5][8,6,2]]
Generated Nodes:
```

[[7,4,0][1,3,5][8,6,2]] - Already visited Node!

```
[[0,7,4][1,3,5][8,6,2]] - f(n) = 22 + 8 = 30
[[7,3,4][1,0,5][8,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][1,4,3][8,6,2]]
Generated Nodes:
[[7,5,0][1,4,3][8,6,2]] - f(n) = 22 + 8 = 30
[[0,7,5][1,4,3][8,6,2]] - f(n) = 22 + 8 = 30
[[7,4,5][1,0,3][8,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][0,1,3][8,6,2]]
Generated Nodes:
[[0,4,5][7,1,3][8,6,2]] - f(n) = 22 + 8 = 30
[[7,4,5][1,0,3][8,6,2]] - Already visited Node!
[[7,4,5][8,1,3][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,4,5][1,6,3][8,0,2]]
Generated Nodes:
[[7,4,5][1,0,3][8,6,2]] - Already visited Node!
[[7,4,5][1,6,3][8,2,0]] - f(n) = 22 + 8 = 30
[[7,4,5][1,6,3][0,8,2]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,8][3,2,0][1,4,6]]
Generated Nodes:
[[7,5,0][3,2,8][1,4,6]] - f(n) = 22 + 8 = 30
[[7,5,8][3,0,2][1,4,6]] - Already visited Node!
[[7,5,8][3,2,6][1,4,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,8][0,3,2][1,4,6]]
Generated Nodes:
[[0,5,8][7,3,2][1,4,6]] - f(n) = 22 + 8 = 30
[[7,5,8][3,0,2][1,4,6]] - Already visited Node!
[[7,5,8][1,3,2][0,4,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,8][3,4,0][1,6,2]]
Generated Nodes:
[[7,5,0][3,4,8][1,6,2]] - Already visited Node!
[[7,5,8][3,0,4][1,6,2]] - f(n) = 22 + 8 = 30
[[7,5,8][3,4,2][1,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[4,8,2][5,7,0][3,1,6]]
```

```
Generated Nodes:
[[4,8,0][5,7,2][3,1,6]] - Already visited Node!
[[4,8,2][5,0,7][3,1,6]] - f(n) = 22 + 8 = 30
[[4,8,2][5,7,6][3,1,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,7,8][5,2,0][3,1,6]]
Generated Nodes:
[[4,7,0][5,2,8][3,1,6]] - f(n) = 22 + 8 = 30
[[4,7,8][5,0,2][3,1,6]] - Already visited Node!
[[4,7,8][5,2,6][3,1,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[4,7,8][5,1,2][3,0,6]]
Generated Nodes:
[[4,7,8][5,0,2][3,1,6]] - Already visited Node!
[[4,7,8][5,1,2][3,6,0]] - f(n) = 22 + 8 = 30
[[4,7,8][5,1,2][0,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,8][3,2,0][1,7,6]]
Generated Nodes:
[[5,4,0][3,2,8][1,7,6]] - Already visited Node!
[[5,4,8][3,0,2][1,7,6]] - Already visited Node!
[[5,4,8][3,2,6][1,7,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,4,8][0,3,2][1,7,6]]
Generated Nodes:
[[0,4,8][5,3,2][1,7,6]] - f(n) = 22 + 8 = 30
[[5,4,8][3,0,2][1,7,6]] - Already visited Node!
[[5,4,8][1,3,2][0,7,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,8][3,7,0][1,6,2]]
Generated Nodes:
[[5,4,0][3,7,8][1,6,2]] - f(n) = 22 + 8 = 30
[[5,4,8][3,0,7][1,6,2]] - f(n) = 22 + 8 = 30
[[5,4,8][3,7,2][1,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,4][7,1,8][3,6,2]]
Generated Nodes:
```

[[5,4,0][7,1,8][3,6,2]] - Already visited Node!

```
[[0,5,4][7,1,8][3,6,2]] - f(n) = 22 + 8 = 30
[[5,1,4][7,0,8][3,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,8][7,4,1][3,6,2]]
Generated Nodes:
[[5,8,0][7,4,1][3,6,2]] - f(n) = 22 + 8 = 30
[[0,5,8][7,4,1][3,6,2]] - f(n) = 22 + 8 = 30
[[5,4,8][7,0,1][3,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,8][0,7,1][3,6,2]]
Generated Nodes:
[[0,4,8][5,7,1][3,6,2]] - f(n) = 22 + 8 = 30
[[5,4,8][7,0,1][3,6,2]] - Already visited Node!
[[5,4,8][3,7,1][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,8][7,6,1][3,0,2]]
Generated Nodes:
[[5,4,8][7,0,1][3,6,2]] - Already visited Node!
[[5,4,8][7,6,1][3,2,0]] - f(n) = 22 + 8 = 30
[[5,4,8][7,6,1][0,3,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,8,7][0,4,2][3,1,6]]
Generated Nodes:
[[0,8,7][5,4,2][3,1,6]] - Already visited Node!
[[5,8,7][4,0,2][3,1,6]] - f(n) = 22 + 7 = 29
[[5,8,7][3,4,2][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,4,7][5,2,0][3,1,6]]
Generated Nodes:
[[8,4,0][5,2,7][3,1,6]] - Already visited Node!
[[8,4,7][5,0,2][3,1,6]] - Already visited Node!
[[8,4,7][5,2,6][3,1,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,4,7][5,1,2][3,0,6]]
Generated Nodes:
[[8,4,7][5,0,2][3,1,6]] - Already visited Node!
[[8,4,7][5,1,2][3,6,0]] - f(n) = 22 + 8 = 30
[[8,4,7][5,1,2][0,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,2][8,1,4][5,3,6]]
```

Node Chosen for Level 22 - [[8,0,2][1,7,4][5,3,6]]

Generated Nodes:

[[8,2,0][1,7,4][5,3,6]] - f(n) = 22 + 7 = 29 [[0,8,2][1,7,4][5,3,6]] - f(n) = 22 + 8 = 30[[8,7,2][1,0,4][5,3,6]] - Already visited Node!

Node Chosen for Level 22 - [[8,7,2][1,4,0][5,3,6]]

Generated Nodes:

[[8,7,0][1,4,2][5,3,6]] - f(n) = 22 + 8 = 30 [[8,7,2][1,0,4][5,3,6]] - Already visited Node![[8,7,2][1,4,6][5,3,0]] - f(n) = 22 + 7 = 29

Node Chosen for Level 22 - [[8,7,2][1,3,4][5,0,6]]

Generated Nodes:

deliciated Nodes .

[[8,7,2][1,0,4][5,3,6]] - Already visited Node! [[8,7,2][1,3,4][5,6,0]] - f(n) = 22 + 8 = 30 [[8,7,2][1,3,4][0,5,6]] - f(n) = 22 + 8 = 30

Node Chosen for Level 22 - [[3,5,2][8,4,0][1,7,6]]

Generated Nodes:

[[3,5,0][8,4,2][1,7,6]] - f(n) = 22 + 8 = 30 [[3,5,2][8,0,4][1,7,6]] - Already visited Node![[3,5,2][8,4,6][1,7,0]] - f(n) = 22 + 7 = 29

Node Chosen for Level 22 - [[3,5,2][8,7,4][1,0,6]]

Generated Nodes:

[[3,5,2][8,0,4][1,7,6]] - Already visited Node! [[3,5,2][8,7,4][1,6,0]] - f(n) = 22 + 8 = 30 [[3,5,2][8,7,4][0,1,6]] - f(n) = 22 + 8 = 30

Node Chosen for Level 22 - [[3,5,8][0,4,2][1,7,6]]

Generated Nodes:

[[0,5,8][3,4,2][1,7,6]] - Already visited Node!

```
[[3,5,8][4,0,2][1,7,6]] - f(n) = 22 + 7 = 29
[[3,5,8][1,4,2][0,7,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,8][3,2,0][1,7,6]]
Generated Nodes:
[[5,4,0][3,2,8][1,7,6]] - Already visited Node!
[[5,4,8][3,0,2][1,7,6]] - Already visited Node!
[[5,4,8][3,2,6][1,7,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,4,8][0,3,2][1,7,6]]
Generated Nodes:
[[0,4,8][5,3,2][1,7,6]] - f(n) = 22 + 8 = 30
[[5,4,8][3,0,2][1,7,6]] - Already visited Node!
[[5,4,8][1,3,2][0,7,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,3,2][5,4,0][1,7,6]]
Generated Nodes:
[[8,3,0][5,4,2][1,7,6]] - f(n) = 22 + 8 = 30
[[8,3,2][5,0,4][1,7,6]] - Already visited Node!
[[8,3,2][5,4,6][1,7,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,3,2][5,7,4][1,0,6]]
Generated Nodes:
[[8,3,2][5,0,4][1,7,6]] - Already visited Node!
[[8,3,2][5,7,4][1,6,0]] - f(n) = 22 + 8 = 30
[[8,3,2][5,7,4][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,5,8][0,7,2][1,6,4]]
Generated Nodes:
[[0,5,8][3,7,2][1,6,4]] - Already visited Node!
[[3,5,8][7,0,2][1,6,4]] - f(n) = 22 + 8 = 30
[[3,5,8][1,7,2][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,7,8][3,2,0][1,6,4]]
Generated Nodes:
[[5,7,0][3,2,8][1,6,4]] - f(n) = 22 + 8 = 30
[[5,7,8][3,0,2][1,6,4]] - Already visited Node!
[[5,7,8][3,2,4][1,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,7,8][0,3,2][1,6,4]]
```

```
Generated Nodes:
[[0,7,8][5,3,2][1,6,4]] - f(n) = 22 + 8 = 30
[[5,7,8][3,0,2][1,6,4]] - Already visited Node!
[[5,7,8][1,3,2][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,7,8][3,6,2][1,0,4]]
Generated Nodes:
[[5,7,8][3,0,2][1,6,4]] - Already visited Node!
[[5,7,8][3,6,2][1,4,0]] - f(n) = 22 + 8 = 30
[[5,7,8][3,6,2][0,1,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,5,2][0,8,7][1,6,4]]
Generated Nodes:
[[0,5,2][3,8,7][1,6,4]] - Already visited Node!
[[3,5,2][8,0,7][1,6,4]] - f(n) = 22 + 8 = 30
[[3,5,2][1,8,7][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,0,2][5,3,7][1,6,4]]
Generated Nodes:
[[8,2,0][5,3,7][1,6,4]] - f(n) = 22 + 7 = 29
[[0,8,2][5,3,7][1,6,4]] - Already visited Node!
[[8,3,2][5,0,7][1,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,8,2][1,3,7][6,0,4]]
Generated Nodes:
[[5,8,2][1,0,7][6,3,4]] - f(n) = 22 + 8 = 30
[[5,8,2][1,3,7][6,4,0]] - f(n) = 22 + 8 = 30
[[5,8,2][1,3,7][0,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][3,6,0][1,4,7]]
Generated Nodes:
[[5,8,0][3,6,2][1,4,7]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,6][1,4,7]] - Already visited Node!
[[5,8,2][3,6,7][1,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][0,6,7][3,1,4]]
```

[[0,8,2][5,6,7][3,1,4]] - f(n) = 22 + 8 = 30

Generated Nodes:

```
[[5,8,2][6,0,7][3,1,4]] - f(n) = 22 + 8 = 30
[[5,8,2][3,6,7][0,1,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,8][1,2,0][3,6,4]]
Generated Nodes:
[[7,5,0][1,2,8][3,6,4]] - f(n) = 22 + 8 = 30
[[7,5,8][1,0,2][3,6,4]] - Already visited Node!
[[7,5,8][1,2,4][3,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,8][1,6,2][3,0,4]]
Generated Nodes:
[[7,5,8][1,0,2][3,6,4]] - Already visited Node!
[[7,5,8][1,6,2][3,4,0]] - f(n) = 22 + 8 = 30
[[7,5,8][1,6,2][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,8][3,1,2][6,0,4]]
Generated Nodes:
[[7,5,8][3,0,2][6,1,4]] - f(n) = 22 + 8 = 30
[[7,5,8][3,1,2][6,4,0]] - f(n) = 22 + 8 = 30
[[7,5,8][3,1,2][0,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,1,8][7,2,4][3,0,6]]
Generated Nodes:
[[5,1,8][7,0,4][3,2,6]] - f(n) = 22 + 8 = 30
[[5,1,8][7,2,4][3,6,0]] - Already visited Node!
[[5,1,8][7,2,4][0,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,1,8][3,7,2][6,0,4]]
Generated Nodes:
[[5,1,8][3,0,2][6,7,4]] - f(n) = 22 + 8 = 30
[[5,1,8][3,7,2][6,4,0]] - f(n) = 22 + 8 = 30
[[5,1,8][3,7,2][0,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,1,8][7,6,0][3,4,2]]
Generated Nodes:
[[5,1,0][7,6,8][3,4,2]] - f(n) = 22 + 8 = 30
[[5,1,8][7,0,6][3,4,2]] - f(n) = 22 + 7 = 29
[[5,1,8][7,6,2][3,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,2][3,8,1][6,7,4]]
```

```
Generated Nodes:
[[5,2,0][3,8,1][6,7,4]] - f(n) = 22 + 7 = 29
[[0,5,2][3,8,1][6,7,4]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,1][6,7,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][3,1,0][6,7,4]]
Generated Nodes:
[[5,8,0][3,1,2][6,7,4]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,1][6,7,4]] - Already visited Node!
[[5,8,2][3,1,4][6,7,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,8,2][0,3,1][6,7,4]]
Generated Nodes:
[[0,8,2][5,3,1][6,7,4]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,1][6,7,4]] - Already visited Node!
[[5,8,2][6,3,1][0,7,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,8,2][3,7,0][6,4,1]]
Generated Nodes:
[[5,8,0][3,7,2][6,4,1]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,7][6,4,1]] - f(n) = 22 + 8 = 30
[[5,8,2][3,7,1][6,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[3,5,2][8,7,0][1,6,4]]
Generated Nodes:
[[3,5,0][8,7,2][1,6,4]] - Already visited Node!
[[3,5,2][8,0,7][1,6,4]] - f(n) = 22 + 8 = 30
[[3,5,2][8,7,4][1,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,3,5][0,7,2][1,6,4]]
Generated Nodes:
[[0,3,5][8,7,2][1,6,4]] - Already visited Node!
[[8,3,5][7,0,2][1,6,4]] - Already visited Node!
[[8,3,5][1,7,2][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,0,7][8,2,5][1,6,4]]
Generated Nodes:
```

[[3,7,0][8,2,5][1,6,4]] - Already visited Node!

```
[[0,3,7][8,2,5][1,6,4]] - f(n) = 22 + 8 = 30
[[3,2,7][8,0,5][1,6,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[3,7,5][8,2,4][1,0,6]]
Generated Nodes:
[[3,7,5][8,0,4][1,2,6]] - f(n) = 22 + 8 = 30
[[3,7,5][8,2,4][1,6,0]] - Already visited Node!
[[3,7,5][8,2,4][0,1,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,7,5][8,6,0][1,4,2]]
Generated Nodes:
[[3,7,0][8,6,5][1,4,2]] - f(n) = 22 + 8 = 30
[[3,7,5][8,0,6][1,4,2]] - f(n) = 22 + 7 = 29
[[3,7,5][8,6,2][1,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,5][0,6,2][8,1,4]]
Generated Nodes:
[[0,7,5][3,6,2][8,1,4]] - f(n) = 22 + 8 = 30
[[3,7,5][6,0,2][8,1,4]] - f(n) = 22 + 8 = 30
[[3,7,5][8,6,2][0,1,4]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,5][1,8,0][6,4,2]]
Generated Nodes:
[[3,7,0][1,8,5][6,4,2]] - f(n) = 22 + 8 = 30
[[3,7,5][1,0,8][6,4,2]] - f(n) = 22 + 8 = 30
[[3,7,5][1,8,2][6,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,8][0,2,5][1,6,4]]
Generated Nodes:
[[0,7,8][3,2,5][1,6,4]] - Already visited Node!
[[3,7,8][2,0,5][1,6,4]] - f(n) = 22 + 8 = 30
[[3,7,8][1,2,5][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][3,8,4][1,2,6]]
Generated Nodes:
[[7,5,0][3,8,4][1,2,6]] - f(n) = 22 + 8 = 30
[[0,7,5][3,8,4][1,2,6]] - f(n) = 22 + 8 = 30
[[7,8,5][3,0,4][1,2,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,8,5][3,4,0][1,2,6]]
```

```
Generated Nodes:
[[7,8,0][3,4,5][1,2,6]] - f(n) = 22 + 8 = 30
[[7,8,5][3,0,4][1,2,6]] - Already visited Node!
[[7,8,5][3,4,6][1,2,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,8,5][0,3,4][1,2,6]]
Generated Nodes:
[[0,8,5][7,3,4][1,2,6]] - f(n) = 22 + 8 = 30
[[7,8,5][3,0,4][1,2,6]] - Already visited Node!
[[7,8,5][1,3,4][0,2,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,8,5][0,2,4][3,1,6]]
Generated Nodes:
[[0,8,5][7,2,4][3,1,6]] - f(n) = 22 + 8 = 30
[[7,8,5][2,0,4][3,1,6]] - f(n) = 22 + 8 = 30
[[7,8,5][3,2,4][0,1,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,5,2][7,3,0][1,6,4]]
Generated Nodes:
[[8,5,0][7,3,2][1,6,4]] - Already visited Node!
[[8,5,2][7,0,3][1,6,4]] - f(n) = 22 + 8 = 30
[[8,5,2][7,3,4][1,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,3,5][7,2,0][1,6,4]]
Generated Nodes:
[[8,3,0][7,2,5][1,6,4]] - f(n) = 22 + 8 = 30
[[8,3,5][7,0,2][1,6,4]] - Already visited Node!
[[8,3,5][7,2,4][1,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,3,5][0,7,2][1,6,4]]
Generated Nodes:
[[0,3,5][8,7,2][1,6,4]] - Already visited Node!
[[8,3,5][7,0,2][1,6,4]] - Already visited Node!
[[8,3,5][1,7,2][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,3,5][7,6,2][1,0,4]]
Generated Nodes:
```

[[8,3,5][7,0,2][1,6,4]] - Already visited Node!

```
[[8,3,5][7,6,2][1,4,0]] - f(n) = 22 + 8 = 30
[[8,3,5][7,6,2][0,1,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][1,8,2][6,3,4]]
Generated Nodes:
[[7,5,0][1,8,2][6,3,4]] - Already visited Node!
[[0,7,5][1,8,2][6,3,4]] - f(n) = 22 + 8 = 30
[[7,8,5][1,0,2][6,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,8,5][1,2,0][6,3,4]]
Generated Nodes:
[[7,8,0][1,2,5][6,3,4]] - f(n) = 22 + 8 = 30
[[7,8,5][1,0,2][6,3,4]] - Already visited Node!
[[7,8,5][1,2,4][6,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,8,5][0,1,2][6,3,4]]
Generated Nodes:
[[0,8,5][7,1,2][6,3,4]] - f(n) = 22 + 8 = 30
[[7,8,5][1,0,2][6,3,4]] - Already visited Node!
[[7,8,5][6,1,2][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,8,5][1,3,0][6,4,2]]
Generated Nodes:
[[7,8,0][1,3,5][6,4,2]] - f(n) = 22 + 8 = 30
[[7,8,5][1,0,3][6,4,2]] - f(n) = 22 + 8 = 30
[[7,8,5][1,3,2][6,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,8][3,6,5][1,4,2]]
Generated Nodes:
[[7,8,0][3,6,5][1,4,2]] - Already visited Node!
[[0,7,8][3,6,5][1,4,2]] - f(n) = 22 + 8 = 30
[[7,6,8][3,0,5][1,4,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,0,5][7,6,2][3,1,4]]
Generated Nodes:
[[8,5,0][7,6,2][3,1,4]] - f(n) = 22 + 8 = 30
[[0,8,5][7,6,2][3,1,4]] - Already visited Node!
[[8,6,5][7,0,2][3,1,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][6,8,2][3,1,4]]
```

```
Generated Nodes:
[[7,5,0][6,8,2][3,1,4]] - Already visited Node!
[[0,7,5][6,8,2][3,1,4]] - f(n) = 22 + 8 = 30
[[7,8,5][6,0,2][3,1,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,8,5][6,2,0][3,1,4]]
Generated Nodes:
[[7,8,0][6,2,5][3,1,4]] - f(n) = 22 + 8 = 30
[[7,8,5][6,0,2][3,1,4]] - Already visited Node!
[[7,8,5][6,2,4][3,1,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,8,5][6,1,2][3,0,4]]
Generated Nodes:
[[7,8,5][6,0,2][3,1,4]] - Already visited Node!
[[7,8,5][6,1,2][3,4,0]] - f(n) = 22 + 8 = 30
[[7,8,5][6,1,2][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,3,2][1,7,8][6,0,4]]
Generated Nodes:
[[5,3,2][1,0,8][6,7,4]] - f(n) = 22 + 8 = 30
[[5,3,2][1,7,8][6,4,0]] - f(n) = 22 + 8 = 30
[[5,3,2][1,7,8][0,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,3,2][7,6,0][1,4,8]]
Generated Nodes:
[[5,3,0][7,6,2][1,4,8]] - f(n) = 22 + 8 = 30
[[5,3,2][7,0,6][1,4,8]] - Already visited Node!
[[5,3,2][7,6,8][1,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,5][1,8,2][6,3,4]]
Generated Nodes:
[[7,5,0][1,8,2][6,3,4]] - Already visited Node!
[[0,7,5][1,8,2][6,3,4]] - f(n) = 22 + 8 = 30
[[7,8,5][1,0,2][6,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][1,8,4][6,0,3]]
Generated Nodes:
```

[[7,5,2][1,0,4][6,8,3]] - f(n) = 22 + 7 = 29

```
[[7,5,2][1,8,4][6,3,0]] - Already visited Node!
[[7,5,2][1,8,4][0,6,3]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,2][7,1,8][6,3,4]]
Generated Nodes:
[[5,2,0][7,1,8][6,3,4]] - f(n) = 22 + 7 = 29
[[0,5,2][7,1,8][6,3,4]] - Already visited Node!
[[5,1,2][7,0,8][6,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][1,3,2][6,4,8]]
Generated Nodes:
[[7,5,0][1,3,2][6,4,8]] - Already visited Node!
[[0,7,5][1,3,2][6,4,8]] - f(n) = 22 + 8 = 30
[[7,3,5][1,0,2][6,4,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][0,1,3][6,4,8]]
Generated Nodes:
[[0,5,2][7,1,3][6,4,8]] - f(n) = 22 + 8 = 30
[[7,5,2][1,0,3][6,4,8]] - Already visited Node!
[[7,5,2][6,1,3][0,4,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][1,4,3][6,0,8]]
Generated Nodes:
[[7,5,2][1,0,3][6,4,8]] - Already visited Node!
[[7,5,2][1,4,3][6,8,0]] - f(n) = 22 + 7 = 29
[[7,5,2][1,4,3][0,6,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,7,5][0,6,2][1,4,8]]
Generated Nodes:
[[0,7,5][3,6,2][1,4,8]] - Already visited Node!
[[3,7,5][6,0,2][1,4,8]] - f(n) = 22 + 8 = 30
[[3,7,5][1,6,2][0,4,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,5][3,2,0][1,4,8]]
Generated Nodes:
[[7,6,0][3,2,5][1,4,8]] - f(n) = 22 + 8 = 30
[[7,6,5][3,0,2][1,4,8]] - Already visited Node!
[[7,6,5][3,2,8][1,4,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,5][0,3,2][1,4,8]]
```

```
Generated Nodes:
[[0,6,5][7,3,2][1,4,8]] - f(n) = 22 + 8 = 30
[[7,6,5][3,0,2][1,4,8]] - Already visited Node!
[[7,6,5][1,3,2][0,4,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,5][3,4,2][1,0,8]]
Generated Nodes:
[[7,6,5][3,0,2][1,4,8]] - Already visited Node!
[[7,6,5][3,4,2][1,8,0]] - f(n) = 22 + 7 = 29
[[7,6,5][3,4,2][0,1,8]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,2][7,8,0][3,1,4]]
Generated Nodes:
[[5,6,0][7,8,2][3,1,4]] - f(n) = 22 + 8 = 30
[[5,6,2][7,0,8][3,1,4]] - Already visited Node!
[[5,6,2][7,8,4][3,1,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,2][0,7,8][3,1,4]]
Generated Nodes:
[[0,6,2][5,7,8][3,1,4]] - f(n) = 22 + 8 = 30
[[5,6,2][7,0,8][3,1,4]] - Already visited Node!
[[5,6,2][3,7,8][0,1,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,2][7,1,8][3,0,4]]
Generated Nodes:
[[5,6,2][7,0,8][3,1,4]] - Already visited Node!
[[5,6,2][7,1,8][3,4,0]] - f(n) = 22 + 8 = 30
[[5,6,2][7,1,8][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][6,8,2][3,1,4]]
Generated Nodes:
[[7,5,0][6,8,2][3,1,4]] - Already visited Node!
[[0,7,5][6,8,2][3,1,4]] - f(n) = 22 + 8 = 30
[[7,8,5][6,0,2][3,1,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][6,8,4][3,0,1]]
Generated Nodes:
```

[[7,5,2][6,0,4][3,8,1]] - Already visited Node!

```
[[7,5,2][6,8,4][3,1,0]] - Already visited Node!
[[7,5,2][6,8,4][0,3,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][6,1,0][3,4,8]]
Generated Nodes:
[[7,5,0][6,1,2][3,4,8]] - f(n) = 22 + 8 = 30
[[7,5,2][6,0,1][3,4,8]] - f(n) = 22 + 8 = 30
[[7,5,2][6,1,8][3,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[8,5,2][0,1,7][3,6,4]]
Generated Nodes:
[[0,5,2][8,1,7][3,6,4]] - f(n) = 22 + 8 = 30
[[8,5,2][1,0,7][3,6,4]] - Already visited Node!
[[8,5,2][3,1,7][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,5,2][1,6,7][3,0,4]]
Generated Nodes:
[[8,5,2][1,0,7][3,6,4]] - Already visited Node!
[[8,5,2][1,6,7][3,4,0]] - f(n) = 22 + 8 = 30
[[8,5,2][1,6,7][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,5,2][1,7,4][3,0,6]]
Generated Nodes:
[[8,5,2][1,0,4][3,7,6]] - f(n) = 22 + 8 = 30
[[8,5,2][1,7,4][3,6,0]] - Already visited Node!
[[8,5,2][1,7,4][0,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,0,5][1,7,4][3,2,6]]
Generated Nodes:
[[8,5,0][1,7,4][3,2,6]] - f(n) = 22 + 8 = 30
[[0,8,5][1,7,4][3,2,6]] - f(n) = 22 + 8 = 30
[[8,7,5][1,0,4][3,2,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][1,4,0][3,2,6]]
Generated Nodes:
[[8,7,0][1,4,5][3,2,6]] - f(n) = 22 + 8 = 30
[[8,7,5][1,0,4][3,2,6]] - Already visited Node!
[[8,7,5][1,4,6][3,2,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,5][0,1,4][3,2,6]]
```

```
Generated Nodes:
[[0,7,5][8,1,4][3,2,6]] - Already visited Node!
[[8,7,5][1,0,4][3,2,6]] - Already visited Node!
[[8,7,5][3,1,4][0,2,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,5][0,2,4][1,3,6]]
Generated Nodes:
[[0,7,5][8,2,4][1,3,6]] - f(n) = 22 + 8 = 30
[[8,7,5][2,0,4][1,3,6]] - f(n) = 22 + 8 = 30
[[8,7,5][1,2,4][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,7][1,6,5][3,4,2]]
Generated Nodes:
[[8,7,0][1,6,5][3,4,2]] - Already visited Node!
[[0,8,7][1,6,5][3,4,2]] - f(n) = 22 + 8 = 30
[[8,6,7][1,0,5][3,4,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][8,6,2][1,3,4]]
Generated Nodes:
[[7,5,0][8,6,2][1,3,4]] - f(n) = 22 + 8 = 30
[[0,7,5][8,6,2][1,3,4]] - Already visited Node!
[[7,6,5][8,0,2][1,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,0,5][6,7,2][1,3,4]]
Generated Nodes:
[[8,5,0][6,7,2][1,3,4]] - f(n) = 22 + 8 = 30
[[0,8,5][6,7,2][1,3,4]] - f(n) = 22 + 8 = 30
[[8,7,5][6,0,2][1,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][6,2,0][1,3,4]]
Generated Nodes:
[[8,7,0][6,2,5][1,3,4]] - f(n) = 22 + 8 = 30
[[8,7,5][6,0,2][1,3,4]] - Already visited Node!
[[8,7,5][6,2,4][1,3,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,5][6,3,2][1,0,4]]
Generated Nodes:
```

[[8,7,5][6,0,2][1,3,4]] - Already visited Node!

```
[[8,7,5][6,3,2][1,4,0]] - f(n) = 22 + 8 = 30
[[8,7,5][6,3,2][0,1,4]] - Already visited Node!
Node Chosen for Level 22 - [[8,5,2][3,7,0][6,1,4]]
Generated Nodes:
[[8,5,0][3,7,2][6,1,4]] - Already visited Node!
[[8,5,2][3,0,7][6,1,4]] - f(n) = 22 + 8 = 30
[[8,5,2][3,7,4][6,1,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[3,8,5][0,7,2][6,1,4]]
Generated Nodes:
[[0,8,5][3,7,2][6,1,4]] - Already visited Node!
[[3,8,5][7,0,2][6,1,4]] - f(n) = 22 + 8 = 30
[[3,8,5][6,7,2][0,1,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,0,7][3,2,5][6,1,4]]
Generated Nodes:
[[8,7,0][3,2,5][6,1,4]] - Already visited Node!
[[0,8,7][3,2,5][6,1,4]] - f(n) = 22 + 8 = 30
[[8,2,7][3,0,5][6,1,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,5][3,2,4][6,0,1]]
Generated Nodes:
[[8,7,5][3,0,4][6,2,1]] - f(n) = 22 + 8 = 30
[[8,7,5][3,2,4][6,1,0]] - Already visited Node!
[[8,7,5][3,2,4][0,6,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][8,3,2][6,1,4]]
Generated Nodes:
[[7,5,0][8,3,2][6,1,4]] - f(n) = 22 + 8 = 30
[[0,7,5][8,3,2][6,1,4]] - Already visited Node!
[[7,3,5][8,0,2][6,1,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,5][6,3,2][1,0,4]]
Generated Nodes:
[[8,7,5][6,0,2][1,3,4]] - Already visited Node!
[[8,7,5][6,3,2][1,4,0]] - f(n) = 22 + 8 = 30
[[8,7,5][6,3,2][0,1,4]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,7][3,1,5][6,4,2]]
```

```
Generated Nodes:
[[8,7,0][3,1,5][6,4,2]] - Already visited Node!
[[0,8,7][3,1,5][6,4,2]] - f(n) = 22 + 8 = 30
[[8,1,7][3,0,5][6,4,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,0,5][3,7,1][6,4,2]]
Generated Nodes:
[[8,5,0][3,7,1][6,4,2]] - f(n) = 22 + 8 = 30
[[0,8,5][3,7,1][6,4,2]] - f(n) = 22 + 8 = 30
[[8,7,5][3,0,1][6,4,2]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,5][0,3,1][6,4,2]]
Generated Nodes:
[[0,7,5][8,3,1][6,4,2]] - f(n) = 22 + 8 = 30
[[8,7,5][3,0,1][6,4,2]] - Already visited Node!
[[8,7,5][6,3,1][0,4,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,5][3,4,1][6,0,2]]
Generated Nodes:
[[8,7,5][3,0,1][6,4,2]] - Already visited Node!
[[8,7,5][3,4,1][6,2,0]] - f(n) = 22 + 8 = 30
[[8,7,5][3,4,1][0,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[8,0,1][2,7,5][3,6,4]]
Generated Nodes:
[[8,1,0][2,7,5][3,6,4]] - f(n) = 22 + 8 = 30
[[0,8,1][2,7,5][3,6,4]] - f(n) = 22 + 8 = 30
[[8,7,1][2,0,5][3,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[8,7,1][2,6,5][3,0,4]]
Generated Nodes:
[[8,7,1][2,0,5][3,6,4]] - Already visited Node!
[[8,7,1][2,6,5][3,4,0]] - f(n) = 22 + 8 = 30
[[8,7,1][2,6,5][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,1][3,2,5][6,0,4]]
Generated Nodes:
```

[[8,7,1][3,0,5][6,2,4]] - f(n) = 22 + 8 = 30

```
[[8,7,1][3,2,5][6,4,0]] - f(n) = 22 + 8 = 30
[[8,7,1][3,2,5][0,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,4][8,1,0][3,2,6]]
Generated Nodes:
[[7,5,0][8,1,4][3,2,6]] - Already visited Node!
[[7,5,4][8,0,1][3,2,6]] - f(n) = 22 + 8 = 30
[[7,5,4][8,1,6][3,2,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[8,7,5][0,1,4][3,2,6]]
Generated Nodes:
[[0,7,5][8,1,4][3,2,6]] - Already visited Node!
[[8,7,5][1,0,4][3,2,6]] - Already visited Node!
[[8,7,5][3,1,4][0,2,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,1][8,4,5][3,2,6]]
Generated Nodes:
[[7,1,0][8,4,5][3,2,6]] - Already visited Node!
[[0,7,1][8,4,5][3,2,6]] - f(n) = 22 + 8 = 30
[[7,4,1][8,0,5][3,2,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,1,5][3,8,4][2,0,6]]
Generated Nodes:
[[7,1,5][3,0,4][2,8,6]] - f(n) = 22 + 7 = 29
[[7,1,5][3,8,4][2,6,0]] - f(n) = 22 + 8 = 30
[[7,1,5][3,8,4][0,2,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,5][2,1,4][8,3,6]]
Generated Nodes:
[[7,5,0][2,1,4][8,3,6]] - f(n) = 22 + 8 = 30
[[0,7,5][2,1,4][8,3,6]] - f(n) = 22 + 8 = 30
[[7,1,5][2,0,4][8,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[7,1,5][2,4,0][8,3,6]]
Generated Nodes:
[[7,1,0][2,4,5][8,3,6]] - f(n) = 22 + 8 = 30
[[7,1,5][2,0,4][8,3,6]] - Already visited Node!
[[7,1,5][2,4,6][8,3,0]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,1,5][2,3,4][8,0,6]]
```

```
Generated Nodes:
[[7,1,5][2,0,4][8,3,6]] - Already visited Node!
[[7,1,5][2,3,4][8,6,0]] - f(n) = 22 + 8 = 30
[[7,1,5][2,3,4][0,8,6]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,0,1][3,8,5][6,4,2]]
Generated Nodes:
[[7,1,0][3,8,5][6,4,2]] - Already visited Node!
[[0,7,1][3,8,5][6,4,2]] - f(n) = 22 + 8 = 30
[[7,8,1][3,0,5][6,4,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][3,1,8][6,4,2]]
Generated Nodes:
[[7,5,0][3,1,8][6,4,2]] - f(n) = 22 + 8 = 30
[[0,7,5][3,1,8][6,4,2]] - f(n) = 22 + 8 = 30
[[7,1,5][3,0,8][6,4,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,1,5][0,3,8][6,4,2]]
Generated Nodes:
[[0,1,5][7,3,8][6,4,2]] - f(n) = 22 + 8 = 30
[[7,1,5][3,0,8][6,4,2]] - Already visited Node!
[[7,1,5][6,3,8][0,4,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,1,5][3,4,8][6,0,2]]
Generated Nodes:
[[7,1,5][3,0,8][6,4,2]] - Already visited Node!
[[7,1,5][3,4,8][6,2,0]] - f(n) = 22 + 8 = 30
[[7,1,5][3,4,8][0,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[8,7,1][0,6,5][3,4,2]]
Generated Nodes:
[[0,7,1][8,6,5][3,4,2]] - Already visited Node!
[[8,7,1][6,0,5][3,4,2]] - f(n) = 22 + 8 = 30
[[8,7,1][3,6,5][0,4,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,1][0,8,5][3,4,2]]
```

Generated Nodes:

[[0,6,1][7,8,5][3,4,2]] - f(n) = 22 + 8 = 30

```
[[7,6,1][8,0,5][3,4,2]] - Already visited Node!
[[7,6,1][3,8,5][0,4,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,6,1][8,4,5][3,0,2]]
Generated Nodes:
[[7,6,1][8,0,5][3,4,2]] - Already visited Node!
[[7,6,1][8,4,5][3,2,0]] - f(n) = 22 + 8 = 30
[[7,6,1][8,4,5][0,3,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[6,7,5][0,1,2][8,3,4]]
Generated Nodes:
[[0,7,5][6,1,2][8,3,4]] - Already visited Node!
[[6,7,5][1,0,2][8,3,4]] - f(n) = 22 + 8 = 30
[[6,7,5][8,1,2][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,1][6,2,5][8,3,4]]
Generated Nodes:
[[7,1,0][6,2,5][8,3,4]] - Already visited Node!
[[0,7,1][6,2,5][8,3,4]] - f(n) = 22 + 8 = 30
[[7,2,1][6,0,5][8,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,1,5][6,2,4][8,0,3]]
Generated Nodes:
[[7,1,5][6,0,4][8,2,3]] - f(n) = 22 + 8 = 30
[[7,1,5][6,2,4][8,3,0]] - Already visited Node!
[[7,1,5][6,2,4][0,8,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,1,5][6,3,0][8,4,2]]
Generated Nodes:
[[7,1,0][6,3,5][8,4,2]] - f(n) = 22 + 8 = 30
[[7,1,5][6,0,3][8,4,2]] - f(n) = 22 + 8 = 30
[[7,1,5][6,3,2][8,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,2][3,8,1][6,7,4]]
Generated Nodes:
[[5,2,0][3,8,1][6,7,4]] - f(n) = 22 + 7 = 29
[[0,5,2][3,8,1][6,7,4]] - f(n) =
                                  22 + 8 = 30
[[5,8,2][3,0,1][6,7,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,8,2][3,1,0][6,7,4]]
```

```
Generated Nodes:
[[5,8,0][3,1,2][6,7,4]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,1][6,7,4]] - Already visited Node!
[[5,8,2][3,1,4][6,7,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,8,2][0,3,1][6,7,4]]
Generated Nodes:
[[0,8,2][5,3,1][6,7,4]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,1][6,7,4]] - Already visited Node!
[[5,8,2][6,3,1][0,7,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,8,2][3,7,0][6,4,1]]
Generated Nodes:
[[5,8,0][3,7,2][6,4,1]] - f(n) = 22 + 8 = 30
[[5,8,2][3,0,7][6,4,1]] - f(n) = 22 + 8 = 30
[[5,8,2][3,7,1][6,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[3,7,5][0,8,2][6,4,1]]
Generated Nodes:
[[0,7,5][3,8,2][6,4,1]] - Already visited Node!
[[3,7,5][8,0,2][6,4,1]] - f(n) = 22 + 8 = 30
[[3,7,5][6,8,2][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,8,5][3,2,0][6,4,1]]
Generated Nodes:
[[7,8,0][3,2,5][6,4,1]] - f(n) = 22 + 8 = 30
[[7,8,5][3,0,2][6,4,1]] - Already visited Node!
[[7,8,5][3,2,1][6,4,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,8,5][0,3,2][6,4,1]]
Generated Nodes:
[[0,8,5][7,3,2][6,4,1]] - f(n) = 22 + 8 = 30
[[7,8,5][3,0,2][6,4,1]] - Already visited Node!
[[7,8,5][6,3,2][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,8,5][3,4,2][6,0,1]]
Generated Nodes:
```

[[7,8,5][3,0,2][6,4,1]] - Already visited Node!

```
[[7,8,5][3,4,2][6,1,0]] - f(n) = 22 + 8 = 30
[[7,8,5][3,4,2][0,6,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,2][7,3,8][6,4,1]]
Generated Nodes:
[[5,2,0][7,3,8][6,4,1]] - f(n) = 22 + 7 = 29
[[0,5,2][7,3,8][6,4,1]] - Already visited Node!
[[5,3,2][7,0,8][6,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][6,3,8][4,0,1]]
Generated Nodes:
[[7,5,2][6,0,8][4,3,1]] - f(n) = 22 + 8 = 30
[[7,5,2][6,3,8][4,1,0]] - f(n) = 22 + 8 = 30
[[7,5,2][6,3,8][0,4,1]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][3,4,0][6,1,8]]
Generated Nodes:
[[7,5,0][3,4,2][6,1,8]] - f(n) = 22 + 8 = 30
[[7,5,2][3,0,4][6,1,8]] - Already visited Node!
[[7,5,2][3,4,8][6,1,0]] - Already visited Node!
Node Chosen for Level 22 - [[7,5,2][0,4,8][3,6,1]]
Generated Nodes:
[[0,5,2][7,4,8][3,6,1]] - f(n) = 22 + 8 = 30
[[7,5,2][4,0,8][3,6,1]] - Already visited Node!
[[7,5,2][3,4,8][0,6,1]] - Already visited Node!
Node Chosen for Level 22 - [[5,0,6][7,1,2][8,3,4]]
Generated Nodes:
[[5,6,0][7,1,2][8,3,4]] - Already visited Node!
[[0,5,6][7,1,2][8,3,4]] - f(n) = 22 + 8 = 30
[[5,1,6][7,0,2][8,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,6,2][7,1,4][8,0,3]]
Generated Nodes:
[[5,6,2][7,0,4][8,1,3]] - f(n) = 22 + 8 = 30
[[5,6,2][7,1,4][8,3,0]] - Already visited Node!
[[5,6,2][7,1,4][0,8,3]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[6,0,2][5,7,1][8,3,4]]
```

```
Generated Nodes:
[[6,2,0][5,7,1][8,3,4]] - f(n) = 22 + 7 = 29
[[0,6,2][5,7,1][8,3,4]] - Already visited Node!
[[6,7,2][5,0,1][8,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,6,2][8,7,1][3,0,4]]
Generated Nodes:
[[5,6,2][8,0,1][3,7,4]] - f(n) = 22 + 8 = 30
[[5,6,2][8,7,1][3,4,0]] - f(n) = 22 + 8 = 30
[[5,6,2][8,7,1][0,3,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,6,2][7,3,0][8,4,1]]
Generated Nodes:
[[5,6,0][7,3,2][8,4,1]] - f(n) = 22 + 8 = 30
[[5,6,2][7,0,3][8,4,1]] - f(n) = 22 + 8 = 30
[[5,6,2][7,3,1][8,4,0]] - Already visited Node!
Node Chosen for Level 22 - [[6,7,5][0,1,2][8,3,4]]
Generated Nodes:
[[0,7,5][6,1,2][8,3,4]] - Already visited Node!
[[6,7,5][1,0,2][8,3,4]] - f(n) = 22 + 8 = 30
[[6,7,5][8,1,2][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][6,4,0][8,1,3]]
Generated Nodes:
[[7,5,0][6,4,2][8,1,3]] - f(n) = 22 + 8 = 30
[[7,5,2][6,0,4][8,1,3]] - Already visited Node!
[[7,5,2][6,4,3][8,1,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][0,6,4][8,1,3]]
Generated Nodes:
[[0,5,2][7,6,4][8,1,3]] - f(n) = 22 + 8 = 30
[[7,5,2][6,0,4][8,1,3]] - Already visited Node!
[[7,5,2][8,6,4][0,1,3]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][6,3,2][8,4,1]]
Generated Nodes:
```

[[7,5,0][6,3,2][8,4,1]] - Already visited Node!

```
[[0,7,5][6,3,2][8,4,1]] - f(n) = 22 + 8 = 30
[[7,3,5][6,0,2][8,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][0,6,3][8,4,1]]
Generated Nodes:
[[0,5,2][7,6,3][8,4,1]] - f(n) = 22 + 8 = 30
[[7,5,2][6,0,3][8,4,1]] - Already visited Node!
[[7,5,2][8,6,3][0,4,1]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][6,4,3][8,0,1]]
Generated Nodes:
[[7,5,2][6,0,3][8,4,1]] - Already visited Node!
[[7,5,2][6,4,3][8,1,0]] - f(n) = 22 + 8 = 30
[[7,5,2][6,4,3][0,8,1]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[7,5,1][8,4,2][3,0,6]]
Generated Nodes:
[[7,5,1][8,0,2][3,4,6]] - f(n) = 22 + 8 = 30
[[7,5,1][8,4,2][3,6,0]] - Already visited Node!
[[7,5,1][8,4,2][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[4,0,1][5,7,2][8,3,6]]
Generated Nodes:
[[4,1,0][5,7,2][8,3,6]] - f(n) = 22 + 8 = 30
[[0,4,1][5,7,2][8,3,6]] - Already visited Node!
[[4,7,1][5,0,2][8,3,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,4,1][8,7,2][3,0,6]]
Generated Nodes:
[[5,4,1][8,0,2][3,7,6]] - f(n) = 22 + 8 = 30
[[5,4,1][8,7,2][3,6,0]] - f(n) = 22 + 8 = 30
[[5,4,1][8,7,2][0,3,6]] - Already visited Node!
Node Chosen for Level 22 - [[5,4,1][7,3,0][8,6,2]]
Generated Nodes:
[[5,4,0][7,3,1][8,6,2]] - f(n) = 22 + 8 = 30
[[5,4,1][7,0,3][8,6,2]] - f(n) = 22 + 8 = 30
[[5,4,1][7,3,2][8,6,0]] - Already visited Node!
Node Chosen for Level 22 - [[8,5,2][0,1,4][3,7,6]]
```

```
Generated Nodes:
[[0,5,2][8,1,4][3,7,6]] - Already visited Node!
[[8,5,2][1,0,4][3,7,6]] - f(n) = 22 + 8 = 30
[[8,5,2][3,1,4][0,7,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,1][8,4,2][3,7,6]]
Generated Nodes:
[[5,1,0][8,4,2][3,7,6]] - Already visited Node!
[[0,5,1][8,4,2][3,7,6]] - f(n) = 22 + 8 = 30
[[5,4,1][8,0,2][3,7,6]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,1][8,7,2][3,6,4]]
Generated Nodes:
[[5,1,0][8,7,2][3,6,4]] - Already visited Node!
[[0,5,1][8,7,2][3,6,4]] - f(n) = 22 + 8 = 30
[[5,7,1][8,0,2][3,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,0,2][8,1,7][3,6,4]]
Generated Nodes:
[[5,2,0][8,1,7][3,6,4]] - f(n) = 22 + 7 = 29
[[0,5,2][8,1,7][3,6,4]] - f(n) = 22 + 8 = 30
[[5,1,2][8,0,7][3,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[5,1,2][0,8,7][3,6,4]]
Generated Nodes:
[[0,1,2][5,8,7][3,6,4]] - f(n) = 22 + 8 = 30
[[5,1,2][8,0,7][3,6,4]] - Already visited Node!
[[5,1,2][3,8,7][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,1,2][8,6,7][3,0,4]]
Generated Nodes:
[[5,1,2][8,0,7][3,6,4]] - Already visited Node!
[[5,1,2][8,6,7][3,4,0]] - f(n) = 22 + 8 = 30
[[5,1,2][8,6,7][0,3,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,1][0,3,2][8,6,4]]
Generated Nodes:
```

[[0,5,1][7,3,2][8,6,4]] - Already visited Node!

```
[[7,5,1][3,0,2][8,6,4]] - f(n) = 22 + 8 = 30
[[7,5,1][8,3,2][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,3,1][7,2,0][8,6,4]]
Generated Nodes:
[[5,3,0][7,2,1][8,6,4]] - f(n) = 22 + 8 = 30
[[5,3,1][7,0,2][8,6,4]] - Already visited Node!
[[5,3,1][7,2,4][8,6,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,3,1][0,7,2][8,6,4]]
Generated Nodes:
[[0,3,1][5,7,2][8,6,4]] - f(n) = 22 + 8 = 30
[[5,3,1][7,0,2][8,6,4]] - Already visited Node!
[[5,3,1][8,7,2][0,6,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[5,3,1][7,6,2][8,0,4]]
Generated Nodes:
[[5,3,1][7,0,2][8,6,4]] - Already visited Node!
[[5,3,1][7,6,2][8,4,0]] - f(n) = 22 + 8 = 30
[[5,3,1][7,6,2][0,8,4]] - f(n) = 22 + 7 = 29
Node Chosen for Level 22 - [[5,1,2][8,7,3][6,0,4]]
Generated Nodes:
[[5,1,2][8,0,3][6,7,4]] - f(n) = 22 + 8 = 30
[[5,1,2][8,7,3][6,4,0]] - f(n) = 22 + 8 = 30
[[5,1,2][8,7,3][0,6,4]] - Already visited Node!
Node Chosen for Level 22 - [[7,0,4][1,3,5][8,6,2]]
Generated Nodes:
[[7,4,0][1,3,5][8,6,2]] - Already visited Node!
[[0,7,4][1,3,5][8,6,2]] - f(n) = 22 + 8 = 30
[[7,3,4][1,0,5][8,6,2]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,0,5][1,4,3][8,6,2]]
Generated Nodes:
[[7,5,0][1,4,3][8,6,2]] - f(n) = 22 + 8 = 30
[[0,7,5][1,4,3][8,6,2]] - f(n) = 22 + 8 = 30
[[7,4,5][1,0,3][8,6,2]] - Already visited Node!
Node Chosen for Level 22 - [[7,4,5][0,1,3][8,6,2]]
```

```
Generated Nodes : ______ [[0,4,5][7,1,3][8,
```

[[0,4,5][7,1,3][8,6,2]] - f(n) = 22 + 8 = 30 [[7,4,5][1,0,3][8,6,2]] - Already visited Node![[7,4,5][8,1,3][0,6,2]] - f(n) = 22 + 8 = 30

Node Chosen for Level 22 - [[7,4,5][1,6,3][8,0,2]]

Generated Nodes:

[[7,4,5][1,0,3][8,6,2]] - Already visited Node! [[7,4,5][1,6,3][8,2,0]] - f(n) = 22 + 8 = 30 [[7,4,5][1,6,3][0,8,2]] - f(n) = 22 + 7 = 29

Node Chosen for Level 22 - [[7,3,5][1,2,4][8,0,6]]

Generated Nodes:

[[7,3,5][1,0,4][8,2,6]] - f(n) = 22 + 8 = 30 [[7,3,5][1,2,4][8,6,0]] - Already visited Node![[7,3,5][1,2,4][0,8,6]] - f(n) = 22 + 7 = 29

Node Chosen for Level 22 - [[3,0,5][7,1,2][8,6,4]]

Generated Nodes:

[[3,5,0][7,1,2][8,6,4]] - f(n) = 22 + 8 = 30 [[0,3,5][7,1,2][8,6,4]] - Already visited Node![[3,1,5][7,0,2][8,6,4]] - f(n) = 22 + 8 = 30

Node Character for Lavel 22 [[7 2 5] [0 4 2] [6 0 4]]

Node Chosen for Level 22 - [[7,3,5][8,1,2][6,0,4]]

Generated Nodes:

[[7,3,5][8,0,2][6,1,4]] - f(n) = 22 + 8 = 30 [[7,3,5][8,1,2][6,4,0]] - f(n) = 22 + 8 = 30[[7,3,5][8,1,2][0,6,4]] - Already visited Node!

Node Chosen for Level 22 - [[7,3,5][1,6,0][8,4,2]]

Generated Nodes:

[[7,3,0][1,6,5][8,4,2]] - f(n) = 22 + 8 = 30 [[7,3,5][1,0,6][8,4,2]] - f(n) = 22 + 7 = 29[[7,3,5][1,6,2][8,4,0]] - Already visited Node!

Node Chosen for Level 22 - [[7,5,2][8,3,0][6,1,4]]

Generated Nodes:

[[7,5,0][8,3,2][6,1,4]] - f(n) = 22 + 8 = 30

```
[[7,5,2][8,0,3][6,1,4]] - Already visited Node!
[[7,5,2][8,3,4][6,1,0]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][0,8,3][6,1,4]]
Generated Nodes:
[[0,5,2][7,8,3][6,1,4]] - f(n) = 22 + 8 = 30
[[7,5,2][8,0,3][6,1,4]] - Already visited Node!
[[7,5,2][6,8,3][0,1,4]] - f(n) = 22 + 8 = 30
Node Chosen for Level 22 - [[7,5,2][8,1,0][6,4,3]]
Generated Nodes:
[[7,5,0][8,1,2][6,4,3]] - f(n) = 22 + 8 = 30
[[7,5,2][8,0,1][6,4,3]] - f(n) = 22 + 8 = 30
[[7,5,2][8,1,3][6,4,0]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,2][3,8,6][4,7,1]]
Generated Nodes:
[[5,0,2][3,8,6][4,7,1]] - Already visited Node!
[[3,5,2][0,8,6][4,7,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,8,2][5,3,6][4,7,1]]
Generated Nodes:
[[8,0,2][5,3,6][4,7,1]] - f(n) = 23 + 7 = 30
[[5,8,2][0,3,6][4,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,2][8,4,6][3,7,1]]
Generated Nodes:
[[5,0,2][8,4,6][3,7,1]] - Already visited Node!
[[8,5,2][0,4,6][3,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,4,2][5,8,6][3,7,1]]
Generated Nodes:
[[4,0,2][5,8,6][3,7,1]] - f(n) = 23 + 7 = 30
[[5,4,2][0,8,6][3,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,2][3,8,6][0,7,1]]
Generated Nodes:
[[5,4,2][0,8,6][3,7,1]] - Already visited Node!
```

```
[[5,4,2][3,8,6][7,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,4][5,3,7][1,6,8]]
Generated Nodes:
[[2,0,4][5,3,7][1,6,8]] - f(n) = 23 + 8 = 31
[[5,2,4][0,3,7][1,6,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][1,3,7][0,6,8]]
Generated Nodes:
[[5,2,4][0,3,7][1,6,8]] - Already visited Node!
[[5,2,4][1,3,7][6,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,4][3,6,7][0,1,8]]
Generated Nodes:
[[5,2,4][0,6,7][3,1,8]] - f(n) = 23 + 7 = 30
[[5,2,4][3,6,7][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,0,1][6,7,8]]
Generated Nodes:
[[5,0,4][3,2,1][6,7,8]] - f(n) = 23 + 8 = 31
[[5,2,4][3,1,0][6,7,8]] - f(n) = 23 + 7 = 30
[[5,2,4][0,3,1][6,7,8]] - f(n) = 23 + 7 = 30
[[5,2,4][3,7,1][6,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[4,5,2][7,0,3][1,8,6]]
Generated Nodes:
[[4,0,2][7,5,3][1,8,6]] - f(n) = 23 + 6 = 29
[[4,5,2][7,3,0][1,8,6]] - Already visited Node! [[4,5,2][0,7,3][1,8,6]] - f(n) = 23 + 7 = 30
[[4,5,2][7,8,3][1,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[4,3,0][7,2,5][1,8,6]]
Generated Nodes:
[[4,0,3][7,2,5][1,8,6]] - f(n) = 23 + 6 = 29
[[4,3,5][7,2,0][1,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,3,5][1,7,2][0,8,6]]
Generated Nodes:
```

```
[[4,3,5][0,7,2][1,8,6]] - Already visited Node!
[[4,3,5][1,7,2][8,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,8,7][3,5,2][6,4,1]]
Generated Nodes:
[[8,0,7][3,5,2][6,4,1]] - Already visited Node!
[[3,8,7][0,5,2][6,4,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,5,0][4,1,2][3,6,7]]
Generated Nodes:
[[8,0,5][4,1,2][3,6,7]] - f(n) = 23 + 7 = 30
[[8,5,2][4,1,0][3,6,7]] - Already visited Node!
Node Chosen for Level 23 - [[8,5,2][4,0,1][3,6,7]]
Generated Nodes:
[[8,0,2][4,5,1][3,6,7]] - f(n) = 23 + 6 = 29
[[8,5,2][4,1,0][3,6,7]] - Already visited Node!
[[8,5,2][0,4,1][3,6,7]] - f(n) = 23 + 8 = 31
[[8,5,2][4,6,1][3,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,1,7][4,6,5][3,2,0]]
Generated Nodes:
[[8,1,7][4,6,0][3,2,5]] - f(n) = 23 + 7 = 30
[[8,1,7][4,6,5][3,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[8,1,7][4,6,5][0,3,2]]
Generated Nodes:
[[8,1,7][0,6,5][4,3,2]] - f(n) = 23 + 8 = 31
[[8,1,7][4,6,5][3,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[8,5,1][4,0,7][3,6,2]]
Generated Nodes:
[[8,0,1][4,5,7][3,6,2]] - f(n) = 23 + 6 = 29
[[8,5,1][4,7,0][3,6,2]] - Already visited Node! [[8,5,1][0,4,7][3,6,2]] - f(n) = 23 + 8 = 31
[[8,5,1][4,6,7][3,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,5,1][4,7,2][3,6,0]]
Generated Nodes:
```

```
[[8,5,1][4,7,0][3,6,2]] - Already visited Node!
[[8,5,1][4,7,2][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,5][3,0,6][2,4,1]]
Generated Nodes:
[[8,0,5][3,7,6][2,4,1]] - f(n) =
                                 23 + 7 = 30
[[8,7,5][3,6,0][2,4,1]] - f(n) = 23 + 8 = 31
[[8,7,5][0,3,6][2,4,1]] - f(n) = 23 + 7 = 30
[[8,7,5][3,4,6][2,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,5][3,4,6][2,1,0]]
Generated Nodes:
[[8,7,5][3,4,0][2,1,6]] - f(n) = 23 + 8 = 31
[[8,7,5][3,4,6][2,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[4,8,5][3,7,6][0,2,1]]
Generated Nodes:
[[4,8,5][0,7,6][3,2,1]] - Already visited Node!
[[4,8,5][3,7,6][2,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,7,5][8,4,6][0,3,1]]
Generated Nodes:
[[2,7,5][0,4,6][8,3,1]] - Already visited Node!
[[2,7,5][8,4,6][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,2][3,8,6][4,7,1]]
Generated Nodes:
[[5,0,2][3,8,6][4,7,1]] - Already visited Node!
[[3,5,2][0,8,6][4,7,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,8,2][5,3,6][4,7,1]]
Generated Nodes:
[[8,0,2][5,3,6][4,7,1]] - f(n) = 23 + 7 = 30
[[5,8,2][0,3,6][4,7,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,4][5,8,1][3,7,6]]
Generated Nodes:
```

```
[[2,0,4][5,8,1][3,7,6]] - f(n) = 23 + 8 = 31
[[5,2,4][0,8,1][3,7,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][3,8,1][0,7,6]]
Generated Nodes:
[[5,2,4][0,8,1][3,7,6]] - Already visited Node!
[[5,2,4][3,8,1][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,0][8,7,4][3,6,1]]
Generated Nodes:
[[5,0,2][8,7,4][3,6,1]] - f(n) = 23 + 8 = 31
[[5,2,4][8,7,0][3,6,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][8,0,7][3,6,1]]
Generated Nodes:
[[5,0,4][8,2,7][3,6,1]] - f(n) = 23 + 8 = 31
[[5,2,4][8,7,0][3,6,1]] - Already visited Node!
[[5,2,4][0,8,7][3,6,1]] - f(n) = 23 + 7 = 30
[[5,2,4][8,6,7][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,2,4][5,7,3][8,6,1]]
Generated Nodes:
[[2,0,4][5,7,3][8,6,1]] - f(n) = 23 + 8 = 31
[[5,2,4][0,7,3][8,6,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,4][8,7,3][0,6,1]]
Generated Nodes:
[[5,2,4][0,7,3][8,6,1]] - Already visited Node!
[[5,2,4][8,7,3][6,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,2][7,8,6][4,1,3]]
Generated Nodes:
[[5,0,2][7,8,6][4,1,3]] - f(n) = 23 + 7 = 30
[[7,5,2][0,8,6][4,1,3]] - Already visited Node!
Node Chosen for Level 23 - [[0,8,1][5,4,2][7,3,6]]
Generated Nodes:
[[8,0,1][5,4,2][7,3,6]] - Already visited Node!
```

```
[[5,8,1][0,4,2][7,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,4,1][5,0,2][7,3,6]]
Generated Nodes:
[[8,0,1][5,4,2][7,3,6]] - Already visited Node!
[[8,4,1][5,2,0][7,3,6]] - f(n) = 23 + 7 = 30
[[8,4,1][0,5,2][7,3,6]] - f(n) =
                                  23 + 6 = 29
[[8,4,1][5,3,2][7,0,6]] - f(n) =
                                  23 + 7 = 30
Node Chosen for Level 23 - [[8,1,0][5,3,2][7,6,4]]
Generated Nodes:
[[8,0,1][5,3,2][7,6,4]] - f(n) = 23 + 7 = 30
[[8,1,2][5,3,0][7,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,1,2][5,0,3][7,6,4]]
Generated Nodes:
[[8,0,2][5,1,3][7,6,4]] - f(n) = 23 + 7 = 30
[[8,1,2][5,3,0][7,6,4]] - Already visited Node!
[[8,1,2][0,5,3][7,6,4]] - f(n) = 23 + 6 = 29
[[8,1,2][5,6,3][7,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,8][1,3,2][7,6,0]]
Generated Nodes:
[[5,4,8][1,3,0][7,6,2]] - f(n) = 23 + 7 = 30
[[5,4,8][1,3,2][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,8][1,3,2][7,6,4]]
Generated Nodes:
[[5,0,8][1,3,2][7,6,4]] - Already visited Node!
[[1,5,8][0,3,2][7,6,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,3,8][1,0,2][7,6,4]]
Generated Nodes:
[[5,0,8][1,3,2][7,6,4]] - Already visited Node!
[[5,3,8][1,2,0][7,6,4]] - f(n) = 23 + 7 = 30
[[5,3,8][0,1,2][7,6,4]] - f(n) = 23 + 7 = 30
[[5,3,8][1,6,2][7,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,2][1,8,3][7,6,4]]
```

```
Generated Nodes:
[[5,0,2][1,8,3][7,6,4]] - Already visited Node!
[[1,5,2][0,8,3][7,6,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,8,2][5,1,3][7,6,4]]
Generated Nodes:
[[8,0,2][5,1,3][7,6,4]] - f(n) = 23 + 7 = 30
[[5,8,2][0,1,3][7,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,8,2][1,6,3][7,4,0]]
Generated Nodes:
[[5,8,2][1,6,0][7,4,3]] - Already visited Node!
[[5,8,2][1,6,3][7,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,0][1,5,2][6,4,8]]
Generated Nodes:
[[3,0,7][1,5,2][6,4,8]] - f(n) = 23 + 7 = 30
[[3,7,2][1,5,0][6,4,8]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][0,8,6][1,7,3]]
Generated Nodes:
[[0,2,4][5,8,6][1,7,3]] - f(n) = 24 + 6 = 30
[[5,2,4][8,0,6][1,7,3]] - Already visited Node!
[[5,2,4][1,8,6][0,7,3]] - Already visited Node!
Node Chosen for Level 24 - [[4,0,2][5,7,6][1,8,3]]
Generated Nodes:
[[4,2,0][5,7,6][1,8,3]] - f(n) = 24 + 5 = 29
[[0,4,2][5,7,6][1,8,3]] - Already visited Node!
[[4,7,2][5,0,6][1,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[4,5,2][7,0,3][1,8,6]]
Generated Nodes:
[[4,0,2][7,5,3][1,8,6]] - f(n) = 23 + 6 = 29
[[4,5,2][7,3,0][1,8,6]] - Already visited Node!
[[4,5,2][0,7,3][1,8,6]] - f(n) = 23 + 7 = 30
[[4,5,2][7,8,3][1,0,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[4,3,0][7,2,5][1,8,6]]
```

```
Generated Nodes:
```

```
[[4,0,3][7,2,5][1,8,6]] - f(n) = 23 + 6 = 29
[[4,3,5][7,2,0][1,8,6]] - Already visited Node!
```

Node Chosen for Level 23 - [[4,3,5][1,7,2][0,8,6]]

Generated Nodes:

```
[[4,3,5][0,7,2][1,8,6]] - Already visited Node! [[4,3,5][1,7,2][8,0,6]] - f(n) = 23 + 8 = 31
```

Node Chosen for Level 23 - [[8,2,0][5,1,4][3,6,7]]

Generated Nodes:

```
[[8,0,2][5,1,4][3,6,7]] - f(n) = 23 + 8 = 31
[[8,2,4][5,1,0][3,6,7]] - Already visited Node!
```

Node Chosen for Level 23 - [[8,2,4][5,0,1][3,6,7]]

Generated Nodes:

```
[[8,0,4][5,2,1][3,6,7]] - f(n) = 23 + 8 = 31

[[8,2,4][5,1,0][3,6,7]] - Already visited Node!

[[8,2,4][0,5,1][3,6,7]] - f(n) = 23 + 6 = 29

[[8,2,4][5,6,1][3,0,7]] - f(n) = 23 + 7 = 30
```

Node Chosen for Level 23 - [[0,2,4][8,1,7][5,3,6]]

Generated Nodes:

[[2,0,4][8,1,7][5,3,6]] - f(n) = 23 + 8 = 31[[8,2,4][0,1,7][5,3,6]] - Already visited Node!

Node Chosen for Level 23 - [[8,2,4][1,0,7][5,3,6]]

Generated Nodes:

```
[[8,0,4][1,2,7][5,3,6]] - f(n) = 23 + 8 = 31

[[8,2,4][1,7,0][5,3,6]] - f(n) = 23 + 7 = 30

[[8,2,4][0,1,7][5,3,6]] - Already visited Node!

[[8,2,4][1,3,7][5,0,6]] - f(n) = 23 + 7 = 30
```

Node Chosen for Level 23 - [[5,2,1][3,0,8][6,7,4]]

Generated Nodes:

[[5,0,1][3,2,8][6,7,4]] - f(n) = 23 + 8 = 31[[5,2,1][3,8,0][6,7,4]] - f(n) = 23 + 7 = 30

[[5,2,1][0,3,8][6,7,4]] - f(n) = 23 + 7 = 30

```
[[5,2,1][3,7,8][6,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,1][3,7,8][6,4,0]]
Generated Nodes:
[[5,2,1][3,7,0][6,4,8]] - f(n) = 23 + 7 = 30
[[5,2,1][3,7,8][6,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,0][7,6,1][3,4,8]]
Generated Nodes:
[[5,0,2][7,6,1][3,4,8]] - f(n) = 23 + 8 = 31
[[5,2,1][7,6,0][3,4,8]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,5][6,1,2][0,8,4]]
Generated Nodes:
[[3,7,5][0,1,2][6,8,4]] - Already visited Node!
[[3,7,5][6,1,2][8,0,4]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[5,3,0][7,1,2][6,8,4]]
Generated Nodes:
[[5,0,3][7,1,2][6,8,4]] - f(n) = 23 + 6 = 29
[[5,3,2][7,1,0][6,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,3,2][7,1,4][6,8,0]]
Generated Nodes:
[[5,3,2][7,1,0][6,8,4]] - Already visited Node!
[[5,3,2][7,1,4][6,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,3,2][5,7,1][6,8,4]]
Generated Nodes:
[[3,0,2][5,7,1][6,8,4]] - Already visited Node!
[[5,3,2][0,7,1][6,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,3,2][6,7,1][0,8,4]]
Generated Nodes:
[[5,3,2][0,7,1][6,8,4]] - Already visited Node!
[[5,3,2][6,7,1][8,0,4]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[5,1,2][8,0,6][4,7,3]]
```

```
Generated Nodes:
[[5,0,2][8,1,6][4,7,3]] - f(n) = 23 + 7 = 30
[[5,1,2][8,6,0][4,7,3]] - f(n) = 23 + 8 = 31
[[5,1,2][0,8,6][4,7,3]] - f(n) = 23 + 7 = 30
[[5,1,2][8,7,6][4,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,1,2][8,7,6][4,3,0]]
Generated Nodes:
[[5,1,2][8,7,0][4,3,6]] - f(n) = 23 + 8 = 31
[[5,1,2][8,7,6][4,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][0,1,3][7,6,8]]
Generated Nodes:
[[0,2,4][5,1,3][7,6,8]] - f(n) = 24 + 6 = 30
[[5,2,4][1,0,3][7,6,8]] - Already visited Node!
[[5,2,4][7,1,3][0,6,8]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,2,4][1,6,3][7,0,8]]
Generated Nodes:
[[5,2,4][1,0,3][7,6,8]] - Already visited Node!
[[5,2,4][1,6,3][7,8,0]] - Already visited Node!
[[5,2,4][1,6,3][0,7,8]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[3,5,2][1,4,0][7,8,6]]
Generated Nodes:
[[3,5,0][1,4,2][7,8,6]] - f(n) = 24 + 6 = 30
[[3,5,2][1,0,4][7,8,6]] - Already visited Node!
[[3,5,2][1,4,6][7,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[3,5,1][0,4,2][7,8,6]]
Generated Nodes:
[[0,5,1][3,4,2][7,8,6]] - Already visited Node!
```

[[0,5,1][3,4,2][7,8,6]] - Already visited Node! [[3,5,1][4,0,2][7,8,6]] - f(n) = 24 + 5 = 29 [[3,5,1][7,4,2][0,8,6]] - f(n) = 24 + 7 = 31

Node Chosen for Level 24 - [[5,4,1][3,2,0][7,8,6]]

Generated Nodes:

[[5,4,0][3,2,1][7,8,6]] - Already visited Node!

```
[[5,4,1][3,0,2][7,8,6]] - Already visited Node!
[[5,4,1][3,2,6][7,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,2,4][5,3,0][8,6,7]]
Generated Nodes:
[[1,2,0][5,3,4][8,6,7]] - f(n) = 24 + 6 = 30
[[1,2,4][5,0,3][8,6,7]] - f(n) = 24 + 6 = 30
[[1,2,4][5,3,7][8,6,0]] - Already visited Node!
Node Chosen for Level 24 - [[1,0,7][3,4,2][5,8,6]]
Generated Nodes:
[[1,7,0][3,4,2][5,8,6]] - Already visited Node!
[[0,1,7][3,4,2][5,8,6]] - f(n) = 24 + 7 = 31
[[1,4,7][3,0,2][5,8,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[8,7,0][3,5,2][1,6,4]]
Generated Nodes:
[[8,0,7][3,5,2][1,6,4]] - f(n) = 23 + 7 = 30
[[8,7,2][3,5,0][1,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,5,2][3,7,8][0,6,4]]
Generated Nodes:
[[1,5,2][0,7,8][3,6,4]] - Already visited Node!
[[1,5,2][3,7,8][6,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,5,2][7,6,8][3,4,0]]
Generated Nodes:
[[1,5,2][7,6,0][3,4,8]] - f(n) = 23 + 7 = 30
[[1,5,2][7,6,8][3,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,5,2][7,6,8][0,3,4]]
Generated Nodes:
[[1,5,2][0,6,8][7,3,4]] - f(n) = 23 + 6 = 29
[[1,5,2][7,6,8][3,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,8,5][7,0,4][3,2,6]]
Generated Nodes:
[[1,0,5][7,8,4][3,2,6]] - Already visited Node!
```

```
[[1,8,5][7,4,0][3,2,6]] - f(n) = 23 + 7 = 30
[[1,8,5][0,7,4][3,2,6]] - f(n) = 23 + 7 = 30
[[1,8,5][7,2,4][3,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,8,5][7,2,4][0,3,6]]
Generated Nodes:
[[1,8,5][0,2,4][7,3,6]] - f(n) = 23 + 6 = 29
[[1,8,5][7,2,4][3,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,8,5][3,0,2][6,7,4]]
Generated Nodes:
[[1,0,5][3,8,2][6,7,4]] - f(n) = 23 + 7 = 30
[[1,8,5][3,2,0][6,7,4]] - f(n) = 23 + 7 = 30
[[1,8,5][0,3,2][6,7,4]] - f(n) = 23 + 7 = 30
[[1,8,5][3,7,2][6,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,8,5][3,7,2][6,4,0]]
Generated Nodes:
[[1,8,5][3,7,0][6,4,2]] - f(n) = 23 + 7 = 30
[[1,8,5][3,7,2][6,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,8,0][7,6,5][3,4,2]]
Generated Nodes:
[[1,0,8][7,6,5][3,4,2]] - f(n) = 23 + 7 = 30
[[1,8,5][7,6,0][3,4,2]] - Already visited Node!
Node Chosen for Level 23 - [[6,7,2][8,5,1][3,4,0]]
Generated Nodes:
[[6,7,2][8,5,0][3,4,1]] - f(n) = 23 + 7 = 30
[[6,7,2][8,5,1][3,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,5,0][8,7,2][3,4,6]]
Generated Nodes:
[[1,0,5][8,7,2][3,4,6]] - Already visited Node!
[[1,5,2][8,7,0][3,4,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,7,0][8,2,5][3,4,6]]
Generated Nodes:
```

```
[[1,0,7][8,2,5][3,4,6]] - f(n) = 23 + 7 = 30
[[1,7,5][8,2,0][3,4,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,5][3,8,2][0,4,6]]
Generated Nodes:
[[1,7,5][0,8,2][3,4,6]] - Already visited Node!
[[1,7,5][3,8,2][4,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,7,0][8,4,5][3,6,2]]
Generated Nodes:
[[1,0,7][8,4,5][3,6,2]] - f(n) = 23 + 7 = 30
[[1,7,5][8,4,0][3,6,2]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,5][8,0,4][3,6,2]]
Generated Nodes:
[[1,0,5][8,7,4][3,6,2]] - f(n) = 23 + 7 = 30
[[1,7,5][8,4,0][3,6,2]] - Already visited Node!
[[1,7,5][0,8,4][3,6,2]] - f(n) = 23 + 7 = 30
[[1,7,5][8,6,4][3,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[8,2,7][4,6,1][3,0,5]]
Generated Nodes:
[[8,2,7][4,0,1][3,6,5]] - Already visited Node!
[[8,2,7][4,6,1][3,5,0]] - f(n) = 24 + 6 = 30
[[8,2,7][4,6,1][0,3,5]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[8,2,4][5,3,0][7,6,1]]
Generated Nodes:
[[8,2,0][5,3,4][7,6,1]] - f(n) = 24 + 6 = 30
[[8,2,4][5,0,3][7,6,1]] - f(n) = 24 + 6 = 30
[[8,2,4][5,3,1][7,6,0]] - Already visited Node!
Node Chosen for Level 24 - [[8,0,2][5,1,6][7,4,3]]
Generated Nodes:
[[8,2,0][5,1,6][7,4,3]] - f(n) = 24 + 5 = 29
[[0,8,2][5,1,6][7,4,3]] - Already visited Node!
[[8,1,2][5,0,6][7,4,3]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,4][7,3,6][5,0,1]]
```

```
Generated Nodes:
[[8,2,4][7,0,6][5,3,1]] - Already visited Node!
[[8,2,4][7,3,6][5,1,0]] - f(n) = 24 + 6 = 30
[[8,2,4][7,3,6][0,5,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,5,2][4,3,7][8,0,6]]
Generated Nodes:
[[1,5,2][4,0,7][8,3,6]] - Already visited Node!
[[1,5,2][4,3,7][8,6,0]] - f(n) = 24 + 6 = 30
[[1,5,2][4,3,7][0,8,6]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,0,7][4,3,5][8,6,2]]
Generated Nodes:
[[1,7,0][4,3,5][8,6,2]] - Already visited Node!
[[0,1,7][4,3,5][8,6,2]] - f(n) = 24 + 7 = 31
[[1,3,7][4,0,5][8,6,2]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,0,5][4,7,3][8,6,2]]
Generated Nodes:
[[1,5,0][4,7,3][8,6,2]] - f(n) = 24 + 6 = 30
[[0,1,5][4,7,3][8,6,2]] - f(n) = 24 + 7 = 31
[[1,7,5][4,0,3][8,6,2]] - Already visited Node!
Node Chosen for Level 24 - [[1,7,5][4,6,3][8,0,2]]
Generated Nodes:
[[1,7,5][4,0,3][8,6,2]] - Already visited Node!
[[1,7,5][4,6,3][8,2,0]] - f(n) = 24 + 6 = 30
[[1,7,5][4,6,3][0,8,2]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[8,2,1][5,6,7][3,4,0]]
Generated Nodes:
[[8,2,1][5,6,0][3,4,7]] - f(n) = 23 + 7 = 30
[[8,2,1][5,6,7][3,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,1][5,6,7][0,3,4]]
Generated Nodes:
[[8,2,1][0,6,7][5,3,4]] - f(n) = 23 + 7 = 30
[[8,2,1][5,6,7][3,0,4]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[8,2,1][5,0,4][3,7,6]]
Generated Nodes:
[[8,0,1][5,2,4][3,7,6]] - f(n) = 23 + 8 = 31
[[8,2,1][5,4,0][3,7,6]] - f(n) = 23 + 7 = 30
[[8,2,1][0,5,4][3,7,6]] - f(n) = 23 + 6 = 29
[[8,2,1][5,7,4][3,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,1][5,7,4][0,3,6]]
Generated Nodes:
[[8,2,1][0,7,4][5,3,6]] - f(n) = 23 + 7 = 30
[[8,2,1][5,7,4][3,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,8,0][7,4,6][3,2,1]]
Generated Nodes:
[[5,0,8][7,4,6][3,2,1]] - Already visited Node!
[[5,8,6][7,4,0][3,2,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,5,8][7,4,6][3,2,1]]
Generated Nodes:
[[5,0,8][7,4,6][3,2,1]] - Already visited Node!
[[7,5,8][0,4,6][3,2,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,8][5,7,6][3,2,1]]
Generated Nodes:
[[4,0,8][5,7,6][3,2,1]] - f(n) = 23 + 7 = 30
[[5,4,8][0,7,6][3,2,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,8][3,7,6][0,2,1]]
Generated Nodes:
[[5,4,8][0,7,6][3,2,1]] - Already visited Node!
[[5,4,8][3,7,6][2,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,5,0][3,7,6][1,2,4]]
Generated Nodes:
[[8,0,5][3,7,6][1,2,4]] - Already visited Node!
[[8,5,6][3,7,0][1,2,4]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,8,5][3,7,6][1,2,4]]
```

```
Generated Nodes:
[[8,0,5][3,7,6][1,2,4]] - Already visited Node!
[[3,8,5][0,7,6][1,2,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,5][8,3,6][1,2,4]]
Generated Nodes:
[[7,0,5][8,3,6][1,2,4]] - f(n) = 23 + 7 = 30
[[8,7,5][0,3,6][1,2,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,5][1,3,6][0,2,4]]
Generated Nodes:
[[8,7,5][0,3,6][1,2,4]] - Already visited Node!
[[8,7,5][1,3,6][2,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,5][8,2,6][3,1,4]]
Generated Nodes:
[[7,0,5][8,2,6][3,1,4]] - f(n) = 23 + 7 = 30
[[8,7,5][0,2,6][3,1,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,5][2,0,6][3,1,4]]
Generated Nodes:
[[8,0,5][2,7,6][3,1,4]] - f(n) = 23 + 7 = 30
[[8,7,5][2,6,0][3,1,4]] - f(n) = 23 + 8 = 31
[[8,7,5][0,2,6][3,1,4]] - Already visited Node!
[[8,7,5][2,1,6][3,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,8,5][3,7,6][0,2,1]]
Generated Nodes:
[[4,8,5][0,7,6][3,2,1]] - Already visited Node!
[[4,8,5][3,7,6][2,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,0][1,4,6][8,2,3]]
Generated Nodes:
[[7,0,5][1,4,6][8,2,3]] - Already visited Node!
[[7,5,6][1,4,0][8,2,3]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,7,5][1,4,6][8,2,3]]
```

```
Generated Nodes:
[[7,0,5][1,4,6][8,2,3]] - Already visited Node!
[[1,7,5][0,4,6][8,2,3]] - Already visited Node!
Node Chosen for Level 23 - [[0,4,5][7,1,6][8,2,3]]
Generated Nodes:
[[4,0,5][7,1,6][8,2,3]] - f(n) = 23 + 7 = 30
[[7,4,5][0,1,6][8,2,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][8,1,6][0,2,3]]
Generated Nodes:
[[7,4,5][0,1,6][8,2,3]] - Already visited Node!
[[7,4,5][8,1,6][2,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,5][4,2,8][3,1,6]]
Generated Nodes:
[[7,0,5][4,2,8][3,1,6]] - Already visited Node!
[[4,7,5][0,2,8][3,1,6]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[7,5,0][4,1,8][3,6,2]]
Generated Nodes:
[[7,0,5][4,1,8][3,6,2]] - f(n) = 23 + 7 = 30
[[7,5,8][4,1,0][3,6,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,8][4,0,1][3,6,2]]
Generated Nodes:
[[7,0,8][4,5,1][3,6,2]] - f(n) = 23 + 6 = 29
[[7,5,8][4,1,0][3,6,2]] - Already visited Node!
[[7,5,8][0,4,1][3,6,2]] - f(n) = 23 + 8 = 31
[[7,5,8][4,6,1][3,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,8,0][7,4,6][3,2,1]]
Generated Nodes:
[[5,0,8][7,4,6][3,2,1]] - Already visited Node!
[[5,8,6][7,4,0][3,2,1]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,5,8][7,4,6][3,2,1]]
Generated Nodes:
```

```
[[5,0,8][7,4,6][3,2,1]] - Already visited Node!
[[7,5,8][0,4,6][3,2,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,8][5,7,6][3,2,1]]
Generated Nodes:
[[4,0,8][5,7,6][3,2,1]] - f(n) = 23 + 7 = 30
[[5,4,8][0,7,6][3,2,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,8][3,7,6][0,2,1]]
Generated Nodes:
[[5,4,8][0,7,6][3,2,1]] - Already visited Node!
[[5,4,8][3,7,6][2,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,2][3,8,6][1,4,7]]
Generated Nodes:
[[5,0,2][3,8,6][1,4,7]] - Already visited Node!
[[3,5,2][0,8,6][1,4,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,8,2][5,3,6][1,4,7]]
Generated Nodes:
[[8,0,2][5,3,6][1,4,7]] - f(n) = 23 + 7 = 30
[[5,8,2][0,3,6][1,4,7]] - Already visited Node!
Node Chosen for Level 23 - [[5,8,2][1,3,6][0,4,7]]
Generated Nodes:
[[5,8,2][0,3,6][1,4,7]] - Already visited Node!
[[5,8,2][1,3,6][4,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,8,2][5,4,6][3,1,7]]
Generated Nodes:
[[8,0,2][5,4,6][3,1,7]] - f(n) = 23 + 7 = 30
[[5,8,2][0,4,6][3,1,7]] - Already visited Node!
Node Chosen for Level 23 - [[0,2,8][5,7,3][1,6,4]]
Generated Nodes:
[[2,0,8][5,7,3][1,6,4]] - f(n) = 23 + 8 = 31
[[5,2,8][0,7,3][1,6,4]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[5,2,8][1,7,3][0,6,4]]
Generated Nodes:
[[5,2,8][0,7,3][1,6,4]] - Already visited Node!
[[5,2,8][1,7,3][6,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,8][7,6,3][1,4,0]]
Generated Nodes:
[[5,2,8][7,6,0][1,4,3]] - f(n) = 23 + 7 = 30
[[5,2,8][7,6,3][1,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,8][7,6,3][0,1,4]]
Generated Nodes:
[[5,2,8][0,6,3][7,1,4]] - f(n) = 23 + 6 = 29
[[5,2,8][7,6,3][1,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,8][7,0,4][1,3,6]]
Generated Nodes:
[[5,0,8][7,2,4][1,3,6]] - f(n) = 23 + 8 = 31
[[5,2,8][7,4,0][1,3,6]] - f(n) = 23 + 7 = 30
[[5,2,8][0,7,4][1,3,6]] - f(n) = 23 + 7 = 30
[[5,2,8][7,3,4][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,8][7,3,4][0,1,6]]
Generated Nodes:
[[5,2,8][0,3,4][7,1,6]] - f(n) = 23 + 6 = 29
[[5,2,8][7,3,4][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,5][6,1,2][0,8,4]]
Generated Nodes:
[[3,7,5][0,1,2][6,8,4]] - Already visited Node!
[[3,7,5][6,1,2][8,0,4]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,7,1][3,2,5][6,8,4]]
Generated Nodes:
[[7,0,1][3,2,5][6,8,4]] - Already visited Node!
[[3,7,1][0,2,5][6,8,4]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[8,7,5][3,1,6][0,4,2]]
Generated Nodes:
[[8,7,5][0,1,6][3,4,2]] - Already visited Node!
[[8,7,5][3,1,6][4,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,1,5][3,8,6][4,2,0]]
Generated Nodes:
[[7,1,5][3,8,0][4,2,6]] - f(n) = 23 + 8 = 31
[[7,1,5][3,8,6][4,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[0,1,5][7,4,6][8,3,2]]
Generated Nodes:
[[1,0,5][7,4,6][8,3,2]] - f(n) = 23 + 6 = 29
[[7,1,5][0,4,6][8,3,2]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,1][7,0,4][8,6,3]]
Generated Nodes:
[[5,0,1][7,2,4][8,6,3]] - f(n) = 23 + 8 = 31
[[5,2,1][7,4,0][8,6,3]] - f(n) = 23 + 7 = 30
[[5,2,1][0,7,4][8,6,3]] - f(n) = 23 + 7 = 30
[[5,2,1][7,6,4][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,0][1,4,6][8,2,3]]
Generated Nodes:
[[7,0,5][1,4,6][8,2,3]] - Already visited Node!
[[7,5,6][1,4,0][8,2,3]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,7,5][1,4,6][8,2,3]]
Generated Nodes:
[[7,0,5][1,4,6][8,2,3]] - Already visited Node!
[[1,7,5][0,4,6][8,2,3]] - Already visited Node!
Node Chosen for Level 23 - [[0,4,5][7,1,6][8,2,3]]
Generated Nodes:
[[4,0,5][7,1,6][8,2,3]] - f(n) = 23 + 7 = 30
[[7,4,5][0,1,6][8,2,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][8,1,6][0,2,3]]
```

```
Generated Nodes:
[[7,4,5][0,1,6][8,2,3]] - Already visited Node!
[[7,4,5][8,1,6][2,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,6,2][7,0,3][1,8,4]]
Generated Nodes:
[[5,0,2][7,6,3][1,8,4]] - Already visited Node!
[[5,6,2][7,3,0][1,8,4]] - f(n) = 23 + 7 = 30
[[5,6,2][0,7,3][1,8,4]] - f(n) = 23 + 7 = 30
[[5,6,2][7,8,3][1,0,4]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[7,5,0][6,3,2][1,8,4]]
Generated Nodes:
[[7,0,5][6,3,2][1,8,4]] - f(n) = 23 + 7 = 30
[[7,5,2][6,3,0][1,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][6,3,4][1,8,0]]
Generated Nodes:
[[7,5,2][6,3,0][1,8,4]] - Already visited Node!
[[7,5,2][6,3,4][1,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 24 - [[4,0,3][5,7,2][1,8,6]]
Generated Nodes:
[[4,3,0][5,7,2][1,8,6]] - f(n) = 24 + 7 = 31
[[0,4,3][5,7,2][1,8,6]] - Already visited Node!
[[4,7,3][5,0,2][1,8,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,0,5][8,4,2][7,3,6]]
Generated Nodes:
[[1,5,0][8,4,2][7,3,6]] - Already visited Node!
[[0,1,5][8,4,2][7,3,6]] - f(n) = 24 + 7 = 31
[[1,4,5][8,0,2][7,3,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,5,2][8,3,0][7,6,4]]
Generated Nodes:
[[1,5,0][8,3,2][7,6,4]] - f(n) = 24 + 6 = 30
[[1,5,2][8,0,3][7,6,4]] - f(n) = 24 + 6 = 30
[[1,5,2][8,3,4][7,6,0]] - Already visited Node!
```

```
Node Chosen for Level 24 - [[8,2,4][3,5,0][1,6,7]]
Generated Nodes:
[[8,2,0][3,5,4][1,6,7]] - f(n) = 24 + 6 = 30
[[8,2,4][3,0,5][1,6,7]] - f(n) = 24 + 7 = 31
[[8,2,4][3,5,7][1,6,0]] - Already visited Node!
Node Chosen for Level 24 - [[1,7,2][8,5,0][6,4,3]]
Generated Nodes:
[[1,7,0][8,5,2][6,4,3]] - f(n) = 24 + 6 = 30
[[1,7,2][8,0,5][6,4,3]] - f(n) = 24 + 7 = 31
[[1,7,2][8,5,3][6,4,0]] - Already visited Node!
Node Chosen for Level 25 - [[1,5,0][4,7,6][8,2,3]]
Generated Nodes:
[[1,0,5][4,7,6][8,2,3]] - Already visited Node!
[[1,5,6][4,7,0][8,2,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 23 - [[1,4,0][2,7,5][8,3,6]]
Generated Nodes:
[[1,0,4][2,7,5][8,3,6]] - Already visited Node!
[[1,4,5][2,7,0][8,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,7,4][2,3,5][8,6,0]]
Generated Nodes:
[[1,7,4][2,3,0][8,6,5]] - f(n) = 23 + 7 = 30
[[1,7,4][2,3,5][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,4][8,0,5][3,2,6]]
Generated Nodes:
[[1,0,4][8,7,5][3,2,6]] - f(n) = 23 + 7 = 30
[[1,7,4][8,5,0][3,2,6]] - f(n) = 23 + 6 = 29
[[1,7,4][0,8,5][3,2,6]] - f(n) = 23 + 7 = 30
[[1,7,4][8,2,5][3,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,4][8,2,5][3,6,0]]
Generated Nodes:
```

[[1,7,4][8,2,0][3,6,5]] - f(n) = 23 + 7 = 30

```
[[1,7,4][8,2,5][3,0,6]] - Already visited Node!
Node Chosen for Level 24 - [[4,0,2][3,7,6][5,8,1]]
Generated Nodes:
[[4,2,0][3,7,6][5,8,1]] - f(n) = 24 + 5 = 29
[[0,4,2][3,7,6][5,8,1]] - f(n) = 24 + 6 = 30
[[4,7,2][3,0,6][5,8,1]] - Already visited Node!
Node Chosen for Level 23 - [[2,7,4][3,5,8][1,6,0]]
Generated Nodes:
[[2,7,4][3,5,0][1,6,8]] - f(n) = 23 + 7 = 30
[[2,7,4][3,5,8][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,8,2][5,0,4][7,1,6]]
Generated Nodes:
[[3,0,2][5,8,4][7,1,6]] - Already visited Node!
[[3,8,2][5,4,0][7,1,6]] - f(n) = 23 + 7 = 30
[[3,8,2][0,5,4][7,1,6]] - f(n) = 23 + 6 = 29
[[3,8,2][5,1,4][7,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,2][8,3,4][7,1,6]]
Generated Nodes:
[[5,0,2][8,3,4][7,1,6]] - Already visited Node!
[[8,5,2][0,3,4][7,1,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,3,0][8,4,2][7,1,6]]
Generated Nodes:
[[5,0,3][8,4,2][7,1,6]] - f(n) = 23 + 6 = 29
[[5,3,2][8,4,0][7,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,3,2][8,1,4][7,6,0]]
Generated Nodes:
[[5,3,2][8,1,0][7,6,4]] - f(n) = 23 + 7 = 30
[[5,3,2][8,1,4][7,0,6]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,1][0,4,6][8,3,5]]
Generated Nodes:
[[0,2,1][7,4,6][8,3,5]] - f(n) = 24 + 6 = 30
```

```
[[7,2,1][4,0,6][8,3,5]] - f(n) = 24 + 5 = 29
[[7,2,1][8,4,6][0,3,5]] - Already visited Node!
Node Chosen for Level 24 - [[1,2,4][0,8,7][3,5,6]]
Generated Nodes:
[[0,2,4][1,8,7][3,5,6]] - f(n) = 24 + 7 = 31
[[1,2,4][8,0,7][3,5,6]] - Already visited Node!
[[1,2,4][3,8,7][0,5,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,0,2][8,7,6][3,4,5]]
Generated Nodes:
[[1,2,0][8,7,6][3,4,5]] - f(n) = 24 + 5 = 29
[[0,1,2][8,7,6][3,4,5]] - f(n) = 24 + 7 = 31
[[1,7,2][8,0,6][3,4,5]] - Already visited Node!
Node Chosen for Level 24 - [[1,7,2][0,8,6][3,4,5]]
Generated Nodes:
[[0,7,2][1,8,6][3,4,5]] - f(n) = 24 + 7 = 31
[[1,7,2][8,0,6][3,4,5]] - Already visited Node!
[[1,7,2][3,8,6][0,4,5]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,7,2][0,4,6][8,3,5]]
Generated Nodes:
[[0,7,2][1,4,6][8,3,5]] - f(n) = 24 + 7 = 31
[[1,7,2][4,0,6][8,3,5]] - f(n) = 24 + 5 = 29
[[1,7,2][8,4,6][0,3,5]] - Already visited Node!
Node Chosen for Level 25 - [[8,4,0][2,5,6][7,3,1]]
Generated Nodes:
[[8,0,4][2,5,6][7,3,1]] - Already visited Node!
[[8,4,6][2,5,0][7,3,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[7,2,1][3,8,6][4,0,5]]
Generated Nodes:
[[7,2,1][3,0,6][4,8,5]] - f(n) = 24 + 5 = 29
[[7,2,1][3,8,6][4,5,0]] - f(n) = 24 + 6 = 30
[[7,2,1][3,8,6][0,4,5]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,1][0,4,6][8,3,5]]
```

```
[[0,2,1][7,4,6][8,3,5]] - f(n) = 24 + 6 = 30
[[7,2,1][4,0,6][8,3,5]] - f(n) = 24 + 5 = 29
[[7,2,1][8,4,6][0,3,5]] - Already visited Node!
Node Chosen for Level 23 - [[0,8,7][2,5,4][3,1,6]]
Generated Nodes:
[[8,0,7][2,5,4][3,1,6]] - Already visited Node!
[[2,8,7][0,5,4][3,1,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,4,2][3,5,8][0,1,6]]
Generated Nodes:
[[7,4,2][0,5,8][3,1,6]] - Already visited Node!
[[7,4,2][3,5,8][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,5,0][1,8,2][7,3,6]]
Generated Nodes:
[[4,0,5][1,8,2][7,3,6]] - Already visited Node!
[[4,5,2][1,8,0][7,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,5][1,8,2][7,3,6]]
Generated Nodes:
[[4,0,5][1,8,2][7,3,6]] - Already visited Node!
[[1,4,5][0,8,2][7,3,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[4,8,0][1,2,5][7,3,6]]
Generated Nodes:
[[4,0,8][1,2,5][7,3,6]] - f(n) = 23 + 7 = 30
[[4,8,5][1,2,0][7,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,8,5][1,3,2][7,6,0]]
Generated Nodes:
[[4,8,5][1,3,0][7,6,2]] - f(n) = 23 + 7 = 30
[[4,8,5][1,3,2][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,7,1][8,5,4][3,6,2]]
Generated Nodes:
```

```
[[7,0,1][8,5,4][3,6,2]] - Already visited Node!
[[8,7,1][0,5,4][3,6,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,1,4][8,5,2][0,3,6]]
Generated Nodes:
[[7,1,4][0,5,2][8,3,6]] - f(n) = 23 + 7 = 30
[[7,1,4][8,5,2][3,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,8,0][5,1,2][7,3,6]]
Generated Nodes:
[[4,0,8][5,1,2][7,3,6]] - Already visited Node!
[[4,8,2][5,1,0][7,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,1,8][5,0,2][7,3,6]]
Generated Nodes:
[[4,0,8][5,1,2][7,3,6]] - Already visited Node!
[[4,1,8][5,2,0][7,3,6]] - f(n) = 23 + 7 = 30
[[4,1,8][0,5,2][7,3,6]] - f(n) = 23 + 6 = 29
[[4,1,8][5,3,2][7,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,8][1,3,2][7,6,0]]
Generated Nodes:
[[5,4,8][1,3,0][7,6,2]] - f(n) = 23 + 7 = 30
[[5,4,8][1,3,2][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[8,6,2][5,0,1][7,3,4]]
Generated Nodes:
[[8,0,2][5,6,1][7,3,4]] - Already visited Node!
[[8,6,2][5,1,0][7,3,4]] - f(n) = 23 + 7 = 30
[[8,6,2][0,5,1][7,3,4]] - f(n) = 23 + 6 = 29
[[8,6,2][5,3,1][7,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,2][6,8,1][7,3,4]]
Generated Nodes:
[[5,0,2][6,8,1][7,3,4]] - Already visited Node!
[[6,5,2][0,8,1][7,3,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,8,0][6,1,2][7,3,4]]
Generated Nodes:
```

```
[[5,0,8][6,1,2][7,3,4]] - f(n) = 23 + 7 = 30
[[5,8,2][6,1,0][7,3,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,8,2][6,1,4][7,3,0]]
Generated Nodes:
[[5,8,2][6,1,0][7,3,4]] - Already visited Node!
[[5,8,2][6,1,4][7,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,8,2][6,3,1][7,4,0]]
Generated Nodes:
[[5,8,2][6,3,0][7,4,1]] - f(n) = 23 + 7 = 30
[[5,8,2][6,3,1][7,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[6,7,2][3,5,8][0,1,4]]
Generated Nodes:
[[6,7,2][0,5,8][3,1,4]] - Already visited Node!
[[6,7,2][3,5,8][1,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,8,5][3,0,2][6,7,4]]
Generated Nodes:
[[1,0,5][3,8,2][6,7,4]] - f(n) = 23 + 7 = 30
[[1,8,5][3,2,0][6,7,4]] - f(n) = 23 + 7 = 30
[[1,8,5][0,3,2][6,7,4]] - f(n) = 23 + 7 = 30
[[1,8,5][3,7,2][6,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,8,5][3,7,2][6,4,0]]
Generated Nodes:
[[1,8,5][3,7,0][6,4,2]] - f(n) = 23 + 7 = 30
[[1,8,5][3,7,2][6,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,5,2][7,6,4][8,3,0]]
Generated Nodes:
[[1,5,2][7,6,0][8,3,4]] - Already visited Node!
[[1,5,2][7,6,4][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,6,0][7,2,5][8,3,4]]
Generated Nodes:
```

```
[[1,0,6][7,2,5][8,3,4]] - f(n) = 23 + 7 = 30
[[1,6,5][7,2,0][8,3,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,6,5][7,2,4][8,3,0]]
Generated Nodes:
[[1,6,5][7,2,0][8,3,4]] - Already visited Node!
[[1,6,5][7,2,4][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,6,5][8,7,2][0,3,4]]
Generated Nodes:
[[1,6,5][0,7,2][8,3,4]] - Already visited Node!
[[1,6,5][8,7,2][3,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,6,5][7,3,2][8,4,0]]
Generated Nodes:
[[1,6,5][7,3,0][8,4,2]] - f(n) = 23 + 7 = 30
[[1,6,5][7,3,2][8,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,6,2][5,0,1][7,3,4]]
Generated Nodes:
[[8,0,2][5,6,1][7,3,4]] - Already visited Node!
[[8,6,2][5,1,0][7,3,4]] - f(n) = 23 + 7 = 30
[[8,6,2][0,5,1][7,3,4]] - f(n) = 23 + 6 = 29
[[8,6,2][5,3,1][7,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,2][6,8,1][7,3,4]]
Generated Nodes:
[[5,0,2][6,8,1][7,3,4]] - Already visited Node!
[[6,5,2][0,8,1][7,3,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,8,0][6,1,2][7,3,4]]
Generated Nodes:
[[5,0,8][6,1,2][7,3,4]] - f(n) = 23 + 7 = 30
[[5,8,2][6,1,0][7,3,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,8,2][6,1,4][7,3,0]]
Generated Nodes:
[[5,8,2][6,1,0][7,3,4]] - Already visited Node!
```

```
[[5,8,2][6,1,4][7,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,8,2][6,3,1][7,4,0]]
Generated Nodes:
[[5,8,2][6,3,0][7,4,1]] - f(n) = 23 + 7 = 30
[[5,8,2][6,3,1][7,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,2][6,5,8][0,4,1]]
Generated Nodes:
[[3,7,2][0,5,8][6,4,1]] - Already visited Node!
[[3,7,2][6,5,8][4,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,5,0][3,7,2][8,6,4]]
Generated Nodes:
[[1,0,5][3,7,2][8,6,4]] - Already visited Node!
[[1,5,2][3,7,0][8,6,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,7,0][3,2,5][8,6,4]]
Generated Nodes:
[[1,0,7][3,2,5][8,6,4]] - f(n) = 23 + 7 = 30
[[1,7,5][3,2,0][8,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,5][3,2,4][8,6,0]]
Generated Nodes:
[[1,7,5][3,2,0][8,6,4]] - Already visited Node!
[[1,7,5][3,2,4][8,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,7,5][3,6,2][8,4,0]]
Generated Nodes:
[[1,7,5][3,6,0][8,4,2]] - f(n) = 23 + 7 = 30
[[1,7,5][3,6,2][8,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,5][8,0,2][6,3,4]]
Generated Nodes:
[[1,0,5][8,7,2][6,3,4]] - f(n) = 23 + 7 = 30
[[1,7,5][8,2,0][6,3,4]] - f(n) = 23 + 7 = 30
[[1,7,5][0,8,2][6,3,4]] - f(n) = 23 + 7 = 30
[[1,7,5][8,3,2][6,0,4]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[1,7,5][8,3,2][6,4,0]]
Generated Nodes:
[[1,7,5][8,3,0][6,4,2]] - f(n) = 23 + 7 = 30
[[1,7,5][8,3,2][6,0,4]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][0,8,6][3,1,7]]
Generated Nodes:
[[0,2,4][5,8,6][3,1,7]] - f(n) = 24 + 6 = 30
[[5,2,4][8,0,6][3,1,7]] - f(n) = 24 + 6 = 30
[[5,2,4][3,8,6][0,1,7]] - Already visited Node!
Node Chosen for Level 24 - [[3,7,5][0,4,6][2,8,1]]
Generated Nodes:
[[0,7,5][3,4,6][2,8,1]] - Already visited Node!
[[3,7,5][4,0,6][2,8,1]] - f(n) = 24 + 5 = 29
[[3,7,5][2,4,6][0,8,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[4,0,5][7,3,6][2,8,1]]
Generated Nodes:
[[4,5,0][7,3,6][2,8,1]] - f(n) = 24 + 6 = 30
[[0,4,5][7,3,6][2,8,1]] - Already visited Node!
[[4,3,5][7,0,6][2,8,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[4,2,5][8,7,6][3,0,1]]
Generated Nodes:
[[4,2,5][8,0,6][3,7,1]] - f(n) = 24 + 6 = 30
[[4,2,5][8,7,6][3,1,0]] - f(n) = 24 + 6 = 30
[[4,2,5][8,7,6][0,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[4,0,5][7,3,6][2,8,1]]
Generated Nodes:
[[4,5,0][7,3,6][2,8,1]] - f(n) = 24 + 6 = 30
[[0,4,5][7,3,6][2,8,1]] - Already visited Node!
[[4,3,5][7,0,6][2,8,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[8,0,2][5,1,6][7,4,3]]
Generated Nodes:
```

```
[[8,2,0][5,1,6][7,4,3]] - f(n) = 24 + 5 = 29
[[0,8,2][5,1,6][7,4,3]] - Already visited Node!
[[8,1,2][5,0,6][7,4,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,1][0,7,3][6,8,4]]
Generated Nodes:
[[0,2,1][5,7,3][6,8,4]] - f(n) = 24 + 6 = 30
[[5,2,1][7,0,3][6,8,4]] - Already visited Node!
[[5,2,1][6,7,3][0,8,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[1,2,4][8,5,7][3,6,0]]
Generated Nodes:
[[1,2,4][8,5,0][3,6,7]] - f(n) = 25 + 5 = 30
[[1,2,4][8,5,7][3,0,6]] - Already visited Node!
Node Chosen for Level 24 - [[4,0,5][7,2,6][1,8,3]]
Generated Nodes:
[[4,5,0][7,2,6][1,8,3]] - f(n) = 24 + 6 = 30
[[0,4,5][7,2,6][1,8,3]] - Already visited Node!
[[4,2,5][7,0,6][1,8,3]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,0,5][2,4,6][1,8,3]]
Generated Nodes:
[[7,5,0][2,4,6][1,8,3]] - f(n) = 24 + 6 = 30
[[0,7,5][2,4,6][1,8,3]] - f(n) = 24 + 6 = 30
[[7,4,5][2,0,6][1,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][0,8,6][3,1,7]]
Generated Nodes:
[[0,2,4][5,8,6][3,1,7]] - f(n) = 24 + 6 = 30
[[5,2,4][8,0,6][3,1,7]] - f(n) = 24 + 6 = 30
[[5,2,4][3,8,6][0,1,7]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,1][8,7,6][3,0,4]]
Generated Nodes:
[[5,2,1][8,0,6][3,7,4]] - f(n) = 24 + 6 = 30
[[5,2,1][8,7,6][3,4,0]] - f(n) = 24 + 6 = 30
[[5,2,1][8,7,6][0,3,4]] - Already visited Node!
Node Chosen for Level 24 - [[4,0,5][7,2,6][1,8,3]]
```

```
Generated Nodes:
```

```
[[4,5,0][7,2,6][1,8,3]] - f(n) = 24 + 6 = 30

[[0,4,5][7,2,6][1,8,3]] - Already visited Node!

[[4,2,5][7,0,6][1,8,3]] - f(n) = 24 + 5 = 29
```

Node Change for Lavel 24 [[7.6.5][2.4.6][1.0.2]]

Node Chosen for Level 24 - [[7,0,5][2,4,6][1,8,3]]

Generated Nodes:

```
[[7,5,0][2,4,6][1,8,3]] - f(n) = 24 + 6 = 30

[[0,7,5][2,4,6][1,8,3]] - f(n) = 24 + 6 = 30

[[7,4,5][2,0,6][1,8,3]] - Already visited Node!
```

Node Chosen for Level 25 - [[5,2,6][3,4,1][7,8,0]]

Generated Nodes:

```
[[5,2,6][3,4,0][7,8,1]] - Already visited Node! [[5,2,6][3,4,1][7,0,8]] - f(n) = 25 + 6 = 31
```

Node Chosen for Level 24 - [[8,7,4][0,5,6][2,3,1]]

Generated Nodes:

```
[[0,7,4][8,5,6][2,3,1]] - f(n) = 24 + 6 = 30

[[8,7,4][5,0,6][2,3,1]] - f(n) = 24 + 7 = 31

[[8,7,4][2,5,6][0,3,1]] - Already visited Node!
```

Node Chosen for Level 24 - [[8,5,2][4,1,0][7,3,6]]

Generated Nodes:

[[8,5,0][4,1,2][7,3,6]] - Already visited Node!

[[8,5,2][4,0,1][7,3,6]] - f(n) = 24 + 6 = 30[[8,5,2][4,1,6][7,3,0]] - f(n) = 24 + 5 = 29

Node Chosen for Level 24 - [[8,1,5][4,2,0][7,3,6]]

Generated Nodes:

```
[[8,1,0][4,2,5][7,3,6]] - f(n) = 24 + 6 = 30

[[8,1,5][4,0,2][7,3,6]] - Already visited Node!

[[8,1,5][4,2,6][7,3,0]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 24 - [[8,1,5][4,3,2][7,0,6]]

```
[[8,1,5][4,0,2][7,3,6]] - Already visited Node! [[8,1,5][4,3,2][7,6,0]] - f(n) = 24 + 6 = 30
```

```
[[8,1,5][4,3,2][0,7,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[7,2,8][1,5,4][6,0,3]]
Generated Nodes:
[[7,2,8][1,0,4][6,5,3]] - f(n) = 24 + 7 = 31
[[7,2,8][1,5,4][6,3,0]] - Already visited Node!
[[7,2,8][1,5,4][0,6,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,8][6,5,4][3,0,1]]
Generated Nodes:
[[7,2,8][6,0,4][3,5,1]] - f(n) = 24 + 7 = 31
[[7,2,8][6,5,4][3,1,0]] - Already visited Node!
[[7,2,8][6,5,4][0,3,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,8][3,5,1][6,0,4]]
Generated Nodes:
[[7,2,8][3,0,1][6,5,4]] - f(n) = 24 + 7 = 31
[[7,2,8][3,5,1][6,4,0]] - Already visited Node!
[[7,2,8][3,5,1][0,6,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[7,4,2][3,5,6][0,8,1]]
Generated Nodes:
[[7,4,2][0,5,6][3,8,1]] - Already visited Node!
[[7,4,2][3,5,6][8,0,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 23 - [[3,2,4][1,0,7][8,5,6]]
Generated Nodes:
[[3,0,4][1,2,7][8,5,6]] - f(n) = 23 + 8 = 31
[[3,2,4][1,7,0][8,5,6]] - Already visited Node!
[[3,2,4][0,1,7][8,5,6]] - f(n) = 23 + 7 = 30
[[3,2,4][1,5,7][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,2][1,0,6][8,4,5]]
Generated Nodes:
[[3,0,2][1,7,6][8,4,5]] - f(n) = 23 + 7 = 30
[[3,7,2][1,6,0][8,4,5]] - f(n) = 23 + 8 = 31
[[3,7,2][0,1,6][8,4,5]] - f(n) = 23 + 7 = 30
[[3,7,2][1,4,6][8,0,5]] - Already visited Node!
Node Chosen for Level 24 - [[1,0,4][2,7,6][8,5,3]]
```

```
Generated Nodes:
```

```
[[1,4,0][2,7,6][8,5,3]] - f(n) = 24 + 6 = 30

[[0,1,4][2,7,6][8,5,3]] - f(n) = 24 + 7 = 31

[[1,7,4][2,0,6][8,5,3]] - Already visited Node!
```

Node Chosen for Level 24 - [[1,7,4][8,2,6][5,0,3]]

Generated Nodes:

```
[[1,7,4][8,0,6][5,2,3]] - f(n) = 24 + 6 = 30

[[1,7,4][8,2,6][5,3,0]] - f(n) = 24 + 6 = 30

[[1,7,4][8,2,6][0,5,3]] - Already visited Node!
```

Node Chosen for Level 24 - [[5,2,4][6,1,0][7,3,8]]

Generated Nodes:

```
[[5,2,0][6,1,4][7,3,8]] - f(n) = 24 + 6 = 30

[[5,2,4][6,0,1][7,3,8]] - Already visited Node!

[[5,2,4][6,1,8][7,3,0]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 24 - [[5,2,4][6,3,1][7,0,8]]

Generated Nodes:

```
[[5,2,4][6,0,1][7,3,8]] - Already visited Node! [[5,2,4][6,3,1][7,8,0]] - f(n) = 24 + 5 = 29 [[5,2,4][6,3,1][0,7,8]] - f(n) = 24 + 7 = 31
```

Node Chosen for Level 23 - [[8,2,1][3,0,7][6,5,4]]

Generated Nodes:

```
[[8,0,1][3,2,7][6,5,4]] - f(n) = 23 + 8 = 31

[[8,2,1][3,7,0][6,5,4]] - Already visited Node!

[[8,2,1][0,3,7][6,5,4]] - f(n) = 23 + 7 = 30

[[8,2,1][3,5,7][6,0,4]] - f(n) = 23 + 6 = 29
```

Node Chosen for Level 23 - [[8,2,1][3,7,4][6,5,0]]

Generated Nodes:

[[8,2,1][3,7,0][6,5,4]] - Already visited Node! [[8,2,1][3,7,4][6,0,5]] - f(n) = 23 + 7 = 30

Node Chosen for Level 23 - [[3,2,8][5,0,7][1,6,4]]

$$[[3,0,8][5,2,7][1,6,4]] - f(n) = 23 + 8 = 31$$

```
[[3,2,8][5,7,0][1,6,4]] - Already visited Node!
[[3,2,8][0,5,7][1,6,4]] - f(n) = 23 + 6 = 29
[[3,2,8][5,6,7][1,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,2,8][5,7,4][1,6,0]]
Generated Nodes:
[[3,2,8][5,7,0][1,6,4]] - Already visited Node!
[[3,2,8][5,7,4][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[5,2,4][8,1,3][7,0,6]]
Generated Nodes:
[[5,2,4][8,0,3][7,1,6]] - Already visited Node!
[[5,2,4][8,1,3][7,6,0]] - f(n) = 24 + 6 = 30
[[5,2,4][8,1,3][0,7,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[1,5,4][2,8,0][7,3,6]]
Generated Nodes:
[[1,5,0][2,8,4][7,3,6]] - f(n) = 24 + 6 = 30
[[1,5,4][2,0,8][7,3,6]] - Already visited Node!
[[1,5,4][2,8,6][7,3,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,5,4][2,3,8][7,0,6]]
Generated Nodes:
[[1,5,4][2,0,8][7,3,6]] - Already visited Node!
[[1,5,4][2,3,8][7,6,0]] - f(n) = 24 + 6 = 30
[[1,5,4][2,3,8][0,7,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[8,2,6][3,5,7][4,0,1]]
Generated Nodes:
[[8,2,6][3,0,7][4,5,1]] - Already visited Node!
[[8,2,6][3,5,7][4,1,0]] - f(n) = 24 + 6 = 30
[[8,2,6][3,5,7][0,4,1]] - Already visited Node!
Node Chosen for Level 24 - [[6,7,2][0,5,1][4,8,3]]
Generated Nodes:
[[0,7,2][6,5,1][4,8,3]] - Already visited Node!
[[6,7,2][5,0,1][4,8,3]] - f(n) = 24 + 7 = 31
[[6,7,2][4,5,1][0,8,3]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[3,0,2][5,4,6][7,1,8]]
```

```
Generated Nodes:
[[3,2,0][5,4,6][7,1,8]] - f(n) = 24 + 5 = 29
[[0,3,2][5,4,6][7,1,8]] - Already visited Node!
[[3,4,2][5,0,6][7,1,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[0,2,3][7,6,5][1,8,4]]
Generated Nodes:
[[2,0,3][7,6,5][1,8,4]] - f(n) = 25 + 6 = 31
[[7,2,3][0,6,5][1,8,4]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,3][6,0,5][1,8,4]]
Generated Nodes:
[[7,0,3][6,2,5][1,8,4]] - f(n) = 25 + 6 = 31
[[7,2,3][6,5,0][1,8,4]] - Already visited Node!
[[7,2,3][0,6,5][1,8,4]] - Already visited Node!
[[7,2,3][6,8,5][1,0,4]] - f(n) = 25 + 6 = 31
Node Chosen for Level 23 - [[7,5,2][4,0,8][1,3,6]]
Generated Nodes:
[[7,0,2][4,5,8][1,3,6]] - f(n) = 23 + 6 = 29
[[7,5,2][4,8,0][1,3,6]] - Already visited Node!
[[7,5,2][0,4,8][1,3,6]] - f(n) = 23 + 8 = 31
[[7,5,2][4,3,8][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][4,3,8][1,6,0]]
Generated Nodes:
[[7,5,2][4,3,0][1,6,8]] - f(n) = 23 + 7 = 30
[[7,5,2][4,3,8][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[2,4,8][5,0,6][3,7,1]]
Generated Nodes:
[[2,0,8][5,4,6][3,7,1]] - f(n) = 23 + 7 = 30
[[2,4,8][5,6,0][3,7,1]] - f(n) = 23 + 8 = 31
[[2,4,8][0,5,6][3,7,1]] - f(n) = 23 + 6 = 29
[[2,4,8][5,7,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[2,4,8][5,7,6][0,3,1]]
```

```
[[2,4,8][0,7,6][5,3,1]] - f(n) = 23 + 7 = 30
[[2,4,8][5,7,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[2,7,4][5,8,6][0,3,1]]
Generated Nodes:
[[2,7,4][0,8,6][5,3,1]] - f(n) = 23 + 7 = 30
[[2,7,4][5,8,6][3,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,5][1,0,6][4,2,3]]
Generated Nodes:
[[8,0,5][1,7,6][4,2,3]] - f(n) = 23 + 7 = 30
[[8,7,5][1,6,0][4,2,3]] - f(n) =
                                  23 + 8 = 31
[[8,7,5][0,1,6][4,2,3]] - f(n) = 23 + 7 = 30
[[8,7,5][1,2,6][4,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,5][1,2,6][0,4,3]]
Generated Nodes:
[[8,7,5][0,2,6][1,4,3]] - f(n) = 23 + 7 = 30
[[8,7,5][1,2,6][4,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,1][7,0,6][8,2,3]]
Generated Nodes:
[[5,0,1][7,4,6][8,2,3]] - f(n) = 23 + 7 = 30
[[5,4,1][7,6,0][8,2,3]] - f(n) = 23 + 8 = 31
[[5,4,1][0,7,6][8,2,3]] - f(n) = 23 + 7 = 30
[[5,4,1][7,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 25 - [[0,2,6][7,5,3][1,8,4]]
Generated Nodes:
[[2,0,6][7,5,3][1,8,4]] - f(n) = 25 + 6 = 31
[[7,2,6][0,5,3][1,8,4]] - Already visited Node!
Node Chosen for Level 24 - [[3,0,7][2,5,4][1,8,6]]
Generated Nodes:
[[3,7,0][2,5,4][1,8,6]] - Already visited Node!
[[0,3,7][2,5,4][1,8,6]] - f(n) = 24 + 6 = 30
[[3,5,7][2,0,4][1,8,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,2,6][8,1,0][7,3,4]]
```

```
Generated Nodes:
```

```
[[5,2,0][8,1,6][7,3,4]] - f(n) = 24 + 5 = 29
[[5,2,6][8,0,1][7,3,4]] - Already visited Node!
[[5,2,6][8,1,4][7,3,0]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 24 - [[5,2,6][8,3,1][7,0,4]]

Generated Nodes:

```
[[5,2,6][8,0,1][7,3,4]] - Already visited Node!
[[5,2,6][8,3,1][7,4,0]] - f(n) = 24 + 6 = 30
[[5,2,6][8,3,1][0,7,4]] - f(n) = 24 + 7 = 31
```

Node Chosen for Level 23 - [[7,5,4][2,8,6][0,3,1]]

Generated Nodes:

```
[[7,5,4][0,8,6][2,3,1]] - f(n) = 23 + 7 = 30
[[7,5,4][2,8,6][3,0,1]] - Already visited Node!
```

Node Chosen for Level 24 - [[4,0,7][3,5,2][1,8,6]]

Generated Nodes:

```
[[4,7,0][3,5,2][1,8,6]] - f(n) = 24 + 6 = 30
[[0,4,7][3,5,2][1,8,6]] - Already visited Node!
[[4,5,7][3,0,2][1,8,6]] - f(n) = 24 + 7 = 31
```

Node Chosen for Level 24 - [[1,4,7][8,5,2][3,0,6]]

Generated Nodes:

```
[[1,4,7][8,0,2][3,5,6]] - Already visited Node!
[[1,4,7][8,5,2][3,6,0]] - f(n) = 24 + 6 = 30
[[1,4,7][8,5,2][0,3,6]] - Already visited Node!
```

Node Chosen for Level 23 - [[8,5,2][3,0,6][1,7,4]]

Generated Nodes:

```
[[8,0,2][3,5,6][1,7,4]] - f(n) = 23 + 6 = 29
[[8,5,2][3,6,0][1,7,4]] - f(n) = 23 + 8 = 31
[[8,5,2][0,3,6][1,7,4]] - f(n) = 23 + 7 = 30
```

[[8,5,2][3,7,6][1,0,4]] - Already visited Node!

Node Chosen for Level 23 - [[8,5,2][3,7,6][0,1,4]]

```
[[8,5,2][0,7,6][3,1,4]] - f(n) = 23 + 7 = 30
[[8,5,2][3,7,6][1,0,4]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[0,2,7][8,3,5][1,4,6]]
Generated Nodes:
[[2,0,7][8,3,5][1,4,6]] - f(n) = 23 + 8 = 31
[[8,2,7][0,3,5][1,4,6]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,7][1,3,5][0,4,6]]
Generated Nodes:
[[8,2,7][0,3,5][1,4,6]] - Already visited Node!
[[8,2,7][1,3,5][4,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,7][3,4,5][1,6,0]]
Generated Nodes:
[[8,2,7][3,4,0][1,6,5]] - f(n) = 23 + 7 = 30
[[8,2,7][3,4,5][1,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,7,2][4,0,8][3,1,6]]
Generated Nodes:
[[5,0,2][4,7,8][3,1,6]] - Already visited Node!
[[5,7,2][4,8,0][3,1,6]] - f(n) = 23 + 7 = 30
[[5,7,2][0,4,8][3,1,6]] - f(n) = 23 + 8 = 31
[[5,7,2][4,1,8][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,2,8][3,7,5][0,1,6]]
Generated Nodes:
[[4,2,8][0,7,5][3,1,6]] - Already visited Node!
[[4,2,8][3,7,5][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,2,8][7,1,5][3,6,0]]
Generated Nodes:
[[4,2,8][7,1,0][3,6,5]] - f(n) = 23 + 7 = 30
[[4,2,8][7,1,5][3,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,2,8][7,1,5][0,3,6]]
Generated Nodes:
[[4,2,8][0,1,5][7,3,6]] - f(n) = 23 + 6 = 29
[[4,2,8][7,1,5][3,0,6]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[7,5,0][3,4,1][6,8,2]]
Generated Nodes:
[[7,0,5][3,4,1][6,8,2]] - Already visited Node!
[[7,5,1][3,4,0][6,8,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,5][3,4,1][6,8,2]]
Generated Nodes:
[[7,0,5][3,4,1][6,8,2]] - Already visited Node!
[[3,7,5][0,4,1][6,8,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,4,0][3,1,5][6,8,2]]
Generated Nodes:
[[7,0,4][3,1,5][6,8,2]] - f(n) = 23 + 7 = 30
[[7,4,5][3,1,0][6,8,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][3,1,2][6,8,0]]
Generated Nodes:
[[7,4,5][3,1,0][6,8,2]] - Already visited Node!
[[7,4,5][3,1,2][6,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,4,5][7,3,1][6,8,2]]
Generated Nodes:
[[4,0,5][7,3,1][6,8,2]] - f(n) = 23 + 7 = 30
[[7,4,5][0,3,1][6,8,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][6,3,1][0,8,2]]
Generated Nodes:
[[7,4,5][0,3,1][6,8,2]] - Already visited Node!
[[7,4,5][6,3,1][8,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[4,5,2][7,0,6][8,1,3]]
Generated Nodes:
[[4,0,2][7,5,6][8,1,3]] - f(n) = 23 + 6 = 29
[[4,5,2][7,6,0][8,1,3]] - f(n) = 23 + 8 = 31
[[4,5,2][0,7,6][8,1,3]] - f(n) = 23 + 7 = 30
[[4,5,2][7,1,6][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[4,1,5][7,0,6][8,2,3]]
```

```
Generated Nodes:
[[4,0,5][7,1,6][8,2,3]] - f(n) = 23 + 7 = 30
[[4,1,5][7,6,0][8,2,3]] - f(n) = 23 + 8 = 31
[[4,1,5][0,7,6][8,2,3]] - f(n) =
                                  23 + 7 = 30
[[4,1,5][7,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,4][5,0,3][1,7,6]]
Generated Nodes:
[[8,0,4][5,2,3][1,7,6]] - f(n) = 23 + 8 = 31
[[8,2,4][5,3,0][1,7,6]] - Already visited Node!
[[8,2,4][0,5,3][1,7,6]] - f(n) = 23 + 6 = 29
[[8,2,4][5,7,3][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,7][3,0,8][1,6,4]]
Generated Nodes:
[[5,0,7][3,2,8][1,6,4]] - f(n) = 23 + 8 = 31
[[5,2,7][3,8,0][1,6,4]] - Already visited Node!
[[5,2,7][0,3,8][1,6,4]] - f(n) = 23 + 7 = 30
[[5,2,7][3,6,8][1,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,7][3,8,4][1,6,0]]
Generated Nodes:
[[5,2,7][3,8,0][1,6,4]] - Already visited Node!
[[5,2,7][3,8,4][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,5,0][1,7,2][6,8,4]]
Generated Nodes:
[[3,0,5][1,7,2][6,8,4]] - Already visited Node!
[[3,5,2][1,7,0][6,8,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,3,5][1,7,2][6,8,4]]
Generated Nodes:
[[3,0,5][1,7,2][6,8,4]] - Already visited Node!
[[1,3,5][0,7,2][6,8,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[3,7,0][1,2,5][6,8,4]]
```

[[3,0,7][1,2,5][6,8,4]] - f(n) = 23 + 7 = 30

```
[[3,7,5][1,2,0][6,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,5][1,2,4][6,8,0]]
Generated Nodes:
[[3,7,5][1,2,0][6,8,4]] - Already visited Node!
[[3,7,5][1,2,4][6,0,8]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[3,7,5][6,1,2][0,8,4]]
Generated Nodes:
[[3,7,5][0,1,2][6,8,4]] - Already visited Node!
[[3,7,5][6,1,2][8,0,4]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[7,5,0][3,8,6][1,4,2]]
Generated Nodes:
[[7,0,5][3,8,6][1,4,2]] - Already visited Node!
[[7,5,6][3,8,0][1,4,2]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,7,5][3,8,6][1,4,2]]
Generated Nodes:
[[7,0,5][3,8,6][1,4,2]] - Already visited Node!
[[3,7,5][0,8,6][1,4,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,8,5][7,3,6][1,4,2]]
Generated Nodes:
[[8,0,5][7,3,6][1,4,2]] - f(n) = 23 + 7 = 30
[[7,8,5][0,3,6][1,4,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,8,5][1,3,6][0,4,2]]
Generated Nodes:
[[7,8,5][0,3,6][1,4,2]] - Already visited Node!
[[7,8,5][1,3,6][4,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,8,5][3,4,6][1,2,0]]
Generated Nodes:
[[7,8,5][3,4,0][1,2,6]] - Already visited Node!
[[7,8,5][3,4,6][1,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,8,5][3,4,6][0,1,2]]
```

```
Generated Nodes:
[[7,8,5][0,4,6][3,1,2]] - f(n) = 23 + 7 = 30
[[7,8,5][3,4,6][1,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,8][7,6,4][3,1,0]]
Generated Nodes:
[[5,2,8][7,6,0][3,1,4]] - Already visited Node!
[[5,2,8][7,6,4][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,2,7][8,1,5][3,6,4]]
Generated Nodes:
[[2,0,7][8,1,5][3,6,4]] - f(n) = 23 + 8 = 31
[[8,2,7][0,1,5][3,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,7][3,1,5][0,6,4]]
Generated Nodes:
[[8,2,7][0,1,5][3,6,4]] - Already visited Node!
[[8,2,7][3,1,5][6,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,7][1,6,5][3,4,0]]
Generated Nodes:
[[8,2,7][1,6,0][3,4,5]] - f(n) = 23 + 7 = 30
[[8,2,7][1,6,5][3,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,7][1,6,5][0,3,4]]
Generated Nodes:
[[8,2,7][0,6,5][1,3,4]] - f(n) = 23 + 7 = 30
[[8,2,7][1,6,5][3,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,5,0][1,7,6][3,4,2]]
Generated Nodes:
[[8,0,5][1,7,6][3,4,2]] - Already visited Node!
[[8,5,6][1,7,0][3,4,2]] - f(n) = 23 + 8 = 31
Node Chosen for Level 23 - [[0,8,5][1,7,6][3,4,2]]
Generated Nodes:
```

```
[[8,0,5][1,7,6][3,4,2]] - Already visited Node!
[[1,8,5][0,7,6][3,4,2]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[8,7,5][3,1,6][0,4,2]]
Generated Nodes:
[[8,7,5][0,1,6][3,4,2]] - Already visited Node!
[[8,7,5][3,1,6][4,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,5][1,4,6][3,2,0]]
Generated Nodes:
[[8,7,5][1,4,0][3,2,6]] - Already visited Node!
[[8,7,5][1,4,6][3,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,5][1,4,6][0,3,2]]
Generated Nodes:
[[8,7,5][0,4,6][1,3,2]] - f(n) = 23 + 7 = 30
[[8,7,5][1,4,6][3,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,2][7,1,4][6,8,3]]
Generated Nodes:
[[5,0,2][7,1,4][6,8,3]] - f(n) = 23 + 7 = 30
[[7,5,2][0,1,4][6,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][1,0,4][6,8,3]]
Generated Nodes:
[[7,0,2][1,5,4][6,8,3]] - f(n) = 23 + 6 = 29
[[7,5,2][1,4,0][6,8,3]] - f(n) = 23 + 7 = 30
[[7,5,2][0,1,4][6,8,3]] - Already visited Node!
[[7,5,2][1,8,4][6,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,0][4,2,1][8,3,6]]
Generated Nodes:
[[7,0,5][4,2,1][8,3,6]] - f(n) = 23 + 7 = 30
[[7,5,1][4,2,0][8,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,1][4,3,2][8,6,0]]
Generated Nodes:
[[7,5,1][4,3,0][8,6,2]] - f(n) = 23 + 7 = 30
```

```
[[7,5,1][4,3,2][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,1][7,0,6][8,2,3]]
Generated Nodes:
[[5,0,1][7,4,6][8,2,3]] - f(n) = 23 + 7 = 30
[[5,4,1][7,6,0][8,2,3]] - f(n) =
                                  23 + 8 = 31
[[5,4,1][0,7,6][8,2,3]] - f(n) = 23 + 7 = 30
[[5,4,1][7,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,1,2][8,0,6][3,4,7]]
Generated Nodes:
[[5,0,2][8,1,6][3,4,7]] - f(n) =
                                  23 + 7 = 30
[[5,1,2][8,6,0][3,4,7]] - f(n) = 23 + 8 = 31
[[5,1,2][0,8,6][3,4,7]] - f(n) = 23 + 7 = 30
[[5,1,2][8,4,6][3,0,7]] - Already visited Node!
Node Chosen for Level 23 - [[5,1,2][8,4,6][0,3,7]]
Generated Nodes:
[[5,1,2][0,4,6][8,3,7]] - f(n) = 23 + 7 = 30
[[5,1,2][8,4,6][3,0,7]] - Already visited Node!
Node Chosen for Level 23 - [[0,3,5][7,6,2][1,8,4]]
Generated Nodes:
[[3,0,5][7,6,2][1,8,4]] - f(n) = 23 + 7 = 30
[[7,3,5][0,6,2][1,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,3,5][6,0,2][1,8,4]]
Generated Nodes:
[[7,0,5][6,3,2][1,8,4]] - f(n) = 23 + 7 = 30
[[7,3,5][6,2,0][1,8,4]] - f(n) = 23 + 7 = 30
[[7,3,5][0,6,2][1,8,4]] - Already visited Node!
[[7,3,5][6,8,2][1,0,4]] - f(n) = 23 + 8 = 31
Node Chosen for Level 24 - [[5,2,4][6,1,0][7,3,8]]
Generated Nodes:
[[5,2,0][6,1,4][7,3,8]] - f(n) = 24 + 6 = 30
[[5,2,4][6,0,1][7,3,8]] - Already visited Node!
[[5,2,4][6,1,8][7,3,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,4][6,3,1][7,0,8]]
```

```
Generated Nodes:
[[5,2,4][6,0,1][7,3,8]] - Already visited Node!
[[5,2,4][6,3,1][7,8,0]] - f(n) = 24 + 5 = 29
[[5,2,4][6,3,1][0,7,8]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[8,0,1][4,5,7][3,6,2]]
Generated Nodes:
[[8,1,0][4,5,7][3,6,2]] - Already visited Node!
[[0,8,1][4,5,7][3,6,2]] - f(n) = 24 + 6 = 30
[[8,5,1][4,0,7][3,6,2]] - Already visited Node!
Node Chosen for Level 24 - [[8,1,7][4,5,2][3,0,6]]
Generated Nodes:
[[8,1,7][4,0,2][3,5,6]] - f(n) = 24 + 7 = 31
[[8,1,7][4,5,2][3,6,0]] - Already visited Node!
[[8,1,7][4,5,2][0,3,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[8,7,2][0,5,6][4,1,3]]
Generated Nodes:
[[0,7,2][8,5,6][4,1,3]] - Already visited Node!
[[8,7,2][5,0,6][4,1,3]] - f(n) = 24 + 7 = 31
[[8,7,2][4,5,6][0,1,3]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,2,1][6,8,0][7,3,4]]
Generated Nodes:
[[5,2,0][6,8,1][7,3,4]] - Already visited Node!
[[5,2,1][6,0,8][7,3,4]] - Already visited Node!
[[5,2,1][6,8,4][7,3,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,1][6,3,8][7,0,4]]
Generated Nodes:
[[5,2,1][6,0,8][7,3,4]] - Already visited Node!
[[5,2,1][6,3,8][7,4,0]] - f(n) = 24 + 6 = 30
[[5,2,1][6,3,8][0,7,4]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,2,1][8,4,0][7,3,6]]
Generated Nodes:
```

[[5,2,0][8,4,1][7,3,6]] - f(n) = 24 + 6 = 30

```
[[5,2,1][8,0,4][7,3,6]] - Already visited Node!
[[5,2,1][8,4,6][7,3,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,2,1][8,3,4][7,0,6]]
Generated Nodes:
[[5,2,1][8,0,4][7,3,6]] - Already visited Node!
[[5,2,1][8,3,4][7,6,0]] - f(n) = 24 + 6 = 30
[[5,2,1][8,3,4][0,7,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 25 - [[1,2,4][3,0,7][5,8,6]]
Generated Nodes:
[[1,0,4][3,2,7][5,8,6]] - f(n) = 25 + 6 = 31
[[1,2,4][3,7,0][5,8,6]] - Already visited Node!
[[1,2,4][0,3,7][5,8,6]] - Already visited Node!
[[1,2,4][3,8,7][5,0,6]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,2,4][3,0,7][5,8,6]]
Generated Nodes:
[[1,0,4][3,2,7][5,8,6]] - f(n) = 25 + 6 = 31
[[1,2,4][3,7,0][5,8,6]] - Already visited Node!
[[1,2,4][0,3,7][5,8,6]] - Already visited Node!
[[1,2,4][3,8,7][5,0,6]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[1,0,5][6,8,2][7,3,4]]
Generated Nodes:
[[1,5,0][6,8,2][7,3,4]] - f(n) = 24 + 6 = 30
[[0,1,5][6,8,2][7,3,4]] - f(n) = 24 + 7 = 31
[[1,8,5][6,0,2][7,3,4]] - Already visited Node!
Node Chosen for Level 24 - [[1,8,5][6,2,0][7,3,4]]
Generated Nodes:
[[1,8,0][6,2,5][7,3,4]] - f(n) = 24 + 6 = 30
[[1,8,5][6,0,2][7,3,4]] - Already visited Node!
[[1,8,5][6,2,4][7,3,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,8,5][6,3,2][7,0,4]]
Generated Nodes:
[[1,8,5][6,0,2][7,3,4]] - Already visited Node!
[[1,8,5][6,3,2][7,4,0]] - f(n) = 24 + 6 = 30
[[1,8,5][6,3,2][0,7,4]] - f(n) = 24 + 7 = 31
```

```
Node Chosen for Level 26 - [[1,4,3][5,2,0][7,8,6]]
Generated Nodes:
[[1,4,0][5,2,3][7,8,6]] - Already visited Node!
[[1,4,3][5,0,2][7,8,6]] - Already visited Node!
[[1,4,3][5,2,6][7,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 25 - [[0,2,1][7,5,4][6,8,3]]
Generated Nodes:
[[2,0,1][7,5,4][6,8,3]] - f(n) = 25 + 6 = 31
[[7,2,1][0,5,4][6,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,5,2][4,0,6][8,7,3]]
Generated Nodes:
[[1,0,2][4,5,6][8,7,3]] - f(n) = 25 + 4 = 29
[[1,5,2][4,6,0][8,7,3]] - f(n) = 25 + 6 = 31
[[1,5,2][0,4,6][8,7,3]] - f(n) = 25 + 6 = 31
[[1,5,2][4,7,6][8,0,3]] - Already visited Node!
Node Chosen for Level 25 - [[1,2,7][4,3,5][8,6,0]]
Generated Nodes:
[[1,2,7][4,3,0][8,6,5]] - f(n) = 25 + 5 = 30
[[1,2,7][4,3,5][8,0,6]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,1][3,5,7][6,0,4]]
Generated Nodes:
[[8,2,1][3,0,7][6,5,4]] - Already visited Node!
[[8,2,1][3,5,7][6,4,0]] - f(n) = 24 + 6 = 30
[[8,2,1][3,5,7][0,6,4]] - Already visited Node!
Node Chosen for Level 24 - [[4,0,8][5,2,6][7,3,1]]
Generated Nodes:
[[4,8,0][5,2,6][7,3,1]] - f(n) = 24 + 6 = 30
[[0,4,8][5,2,6][7,3,1]] - Already visited Node!
[[4,2,8][5,0,6][7,3,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,0,8][2,4,6][7,3,1]]
Generated Nodes:
```

```
[[5,8,0][2,4,6][7,3,1]] - f(n) = 24 + 6 = 30
[[0,5,8][2,4,6][7,3,1]] - f(n) = 24 + 6 = 30
[[5,4,8][2,0,6][7,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,4,8][2,3,6][7,0,1]]
Generated Nodes:
[[5,4,8][2,0,6][7,3,1]] - Already visited Node!
[[5,4,8][2,3,6][7,1,0]] - f(n) = 24 + 6 = 30
[[5,4,8][2,3,6][0,7,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[4,0,5][2,8,6][7,3,1]]
Generated Nodes:
[[4,5,0][2,8,6][7,3,1]] - f(n) = 24 + 6 = 30
[[0,4,5][2,8,6][7,3,1]] - f(n) = 24 + 6 = 30
[[4,8,5][2,0,6][7,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[4,8,5][2,3,6][7,0,1]]
Generated Nodes:
[[4,8,5][2,0,6][7,3,1]] - Already visited Node!
[[4,8,5][2,3,6][7,1,0]] - f(n) = 24 + 6 = 30
[[4,8,5][2,3,6][0,7,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[4,0,8][5,2,6][7,3,1]]
Generated Nodes:
[[4,8,0][5,2,6][7,3,1]] - f(n) = 24 + 6 = 30
[[0,4,8][5,2,6][7,3,1]] - Already visited Node!
[[4,2,8][5,0,6][7,3,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,0,8][2,4,6][7,3,1]]
Generated Nodes:
[[5,8,0][2,4,6][7,3,1]] - f(n) = 24 + 6 = 30
[[0,5,8][2,4,6][7,3,1]] - f(n) = 24 + 6 = 30
[[5,4,8][2,0,6][7,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,4,8][2,3,6][7,0,1]]
Generated Nodes:
[[5,4,8][2,0,6][7,3,1]] - Already visited Node!
[[5,4,8][2,3,6][7,1,0]] - f(n) = 24 + 6 = 30
[[5,4,8][2,3,6][0,7,1]] - f(n) = 24 + 7 = 31
```

```
Node Chosen for Level 24 - [[1,5,2][7,3,0][6,8,4]]
Generated Nodes:
[[1,5,0][7,3,2][6,8,4]] - Already visited Node!
[[1,5,2][7,0,3][6,8,4]] - f(n) = 24 + 6 = 30
[[1,5,2][7,3,4][6,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,3,5][7,2,0][6,8,4]]
Generated Nodes:
[[1,3,0][7,2,5][6,8,4]] - f(n) = 24 + 6 = 30
[[1,3,5][7,0,2][6,8,4]] - Already visited Node!
[[1,3,5][7,2,4][6,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,3,5][0,7,2][6,8,4]]
Generated Nodes:
[[0,3,5][1,7,2][6,8,4]] - Already visited Node!
[[1,3,5][7,0,2][6,8,4]] - Already visited Node!
[[1,3,5][6,7,2][0,8,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,8,5][0,7,6][3,4,2]]
Generated Nodes:
[[0,8,5][1,7,6][3,4,2]] - Already visited Node!
[[1,8,5][7,0,6][3,4,2]] - Already visited Node!
[[1,8,5][3,7,6][0,4,2]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,8,5][7,4,6][3,0,2]]
Generated Nodes:
[[1,8,5][7,0,6][3,4,2]] - Already visited Node!
[[1,8,5][7,4,6][3,2,0]] - f(n) = 24 + 6 = 30
[[1,8,5][7,4,6][0,3,2]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[6,7,2][0,5,3][1,8,4]]
Generated Nodes:
[[0,7,2][6,5,3][1,8,4]] - Already visited Node!
[[6,7,2][5,0,3][1,8,4]] - f(n) = 24 + 7 = 31
[[6,7,2][1,5,3][0,8,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[1,5,2][8,0,6][7,4,3]]
Generated Nodes:
```

```
[[1,0,2][8,5,6][7,4,3]] - f(n) = 25 + 4 = 29
[[1,5,2][8,6,0][7,4,3]] - f(n) = 25 + 6 = 31
[[1,5,2][0,8,6][7,4,3]] - Already visited Node!
[[1,5,2][8,4,6][7,0,3]] - Already visited Node!
Node Chosen for Level 25 - [[7,8,2][4,5,6][0,3,1]]
Generated Nodes:
[[7,8,2][0,5,6][4,3,1]] - f(n) = 25 + 6 = 31
[[7,8,2][4,5,6][3,0,1]] - Already visited Node!
Node Chosen for Level 24 - [[1,0,7][2,5,4][8,3,6]]
Generated Nodes:
[[1,7,0][2,5,4][8,3,6]] - Already visited Node!
[[0,1,7][2,5,4][8,3,6]] - f(n) = 24 + 7 = 31
[[1,5,7][2,0,4][8,3,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 25 - [[7,3,2][4,0,6][5,8,1]]
Generated Nodes:
[[7,0,2][4,3,6][5,8,1]] - Already visited Node!
[[7,3,2][4,6,0][5,8,1]] - f(n) = 25 + 6 = 31
[[7,3,2][0,4,6][5,8,1]] - f(n) = 25 + 6 = 31
[[7,3,2][4,8,6][5,0,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,2,4][8,0,6][3,7,5]]
Generated Nodes:
[[1,0,4][8,2,6][3,7,5]] - f(n) = 25 + 6 = 31
[[1,2,4][8,6,0][3,7,5]] - f(n) = 25 + 6 = 31
[[1,2,4][0,8,6][3,7,5]] - f(n) = 25 + 5 = 30
[[1,2,4][8,7,6][3,0,5]] - Already visited Node!
Node Chosen for Level 25 - [[1,2,4][8,7,6][0,3,5]]
Generated Nodes:
[[1,2,4][0,7,6][8,3,5]] - f(n) = 25 + 5 = 30
[[1,2,4][8,7,6][3,0,5]] - Already visited Node!
Node Chosen for Level 24 - [[1,7,2][6,5,8][3,0,4]]
Generated Nodes:
[[1,7,2][6,0,8][3,5,4]] - f(n) = 24 + 7 = 31
[[1,7,2][6,5,8][3,4,0]] - f(n) = 24 + 6 = 30
[[1,7,2][6,5,8][0,3,4]] - Already visited Node!
```

```
Node Chosen for Level 25 - [[0,2,4][5,3,6][1,8,7]]
Generated Nodes:
[[2,0,4][5,3,6][1,8,7]] - f(n) = 25 + 6 = 31
[[5,2,4][0,3,6][1,8,7]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,4][1,3,6][0,8,7]]
Generated Nodes:
[[5,2,4][0,3,6][1,8,7]] - Already visited Node!
[[5,2,4][1,3,6][8,0,7]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,7,2][4,0,6][3,8,1]]
Generated Nodes:
[[5,0,2][4,7,6][3,8,1]] - Already visited Node!
[[5,7,2][4,6,0][3,8,1]] - f(n) = 25 + 6 = 31
[[5,7,2][0,4,6][3,8,1]] - f(n) = 25 + 6 = 31
[[5,7,2][4,8,6][3,0,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[0,2,4][5,3,6][1,8,7]]
Generated Nodes:
[[2,0,4][5,3,6][1,8,7]] - f(n) = 25 + 6 = 31
[[5,2,4][0,3,6][1,8,7]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,4][1,3,6][0,8,7]]
Generated Nodes:
[[5,2,4][0,3,6][1,8,7]] - Already visited Node!
[[5,2,4][1,3,6][8,0,7]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[7,2,8][3,5,6][0,4,1]]
Generated Nodes:
[[7,2,8][0,5,6][3,4,1]] - f(n) = 25 + 5 = 30
[[7,2,8][3,5,6][4,0,1]] - Already visited Node!
Node Chosen for Level 25 - [[4,2,8][7,5,6][0,3,1]]
Generated Nodes:
[[4,2,8][0,5,6][7,3,1]] - f(n) = 25 + 4 = 29
[[4,2,8][7,5,6][3,0,1]] - Already visited Node!
```

```
Node Chosen for Level 25 - [[7,2,1][6,5,3][4,8,0]]
Generated Nodes:
[[7,2,1][6,5,0][4,8,3]] - Already visited Node!
[[7,2,1][6,5,3][4,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[0,5,2][4,3,6][7,1,8]]
Generated Nodes:
[[5,0,2][4,3,6][7,1,8]] - Already visited Node!
[[4,5,2][0,3,6][7,1,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[4,0,2][5,6,1][7,8,3]]
Generated Nodes:
[[4,2,0][5,6,1][7,8,3]] - f(n) = 24 + 5 = 29
[[0,4,2][5,6,1][7,8,3]] - Already visited Node!
[[4,6,2][5,0,1][7,8,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,0,2][6,4,1][7,8,3]]
Generated Nodes:
[[5,2,0][6,4,1][7,8,3]] - f(n) = 24 + 5 = 29
[[0,5,2][6,4,1][7,8,3]] - f(n) = 24 + 6 = 30
[[5,4,2][6,0,1][7,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,4,2][6,1,0][7,8,3]]
Generated Nodes:
[[5,4,0][6,1,2][7,8,3]] - f(n) = 24 + 6 = 30
[[5,4,2][6,0,1][7,8,3]] - Already visited Node!
[[5,4,2][6,1,3][7,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[4,0,5][3,1,2][7,8,6]]
Generated Nodes:
[[4,5,0][3,1,2][7,8,6]] - f(n) = 24 + 6 = 30
[[0,4,5][3,1,2][7,8,6]] - f(n) = 24 + 6 = 30
[[4,1,5][3,0,2][7,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[4,1,5][3,2,0][7,8,6]]
Generated Nodes:
[[4,1,0][3,2,5][7,8,6]] - f(n) = 24 + 6 = 30
```

[[4,1,5][3,0,2][7,8,6]] - Already visited Node!

```
[[4,1,5][3,2,6][7,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[8,2,7][1,5,4][3,0,6]]
Generated Nodes:
[[8,2,7][1,0,4][3,5,6]] - f(n) = 24 + 7 = 31
[[8,2,7][1,5,4][3,6,0]] - Already visited Node!
[[8,2,7][1,5,4][0,3,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[6,0,2][5,3,1][7,8,4]]
Generated Nodes:
[[6,2,0][5,3,1][7,8,4]] - f(n) = 24 + 5 = 29
[[0,6,2][5,3,1][7,8,4]] - Already visited Node!
[[6,3,2][5,0,1][7,8,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,0,2][3,6,1][7,8,4]]
Generated Nodes:
[[5,2,0][3,6,1][7,8,4]] - f(n) = 24 + 5 = 29
[[0,5,2][3,6,1][7,8,4]] - f(n) = 24 + 6 = 30
[[5,6,2][3,0,1][7,8,4]] - Already visited Node!
Node Chosen for Level 24 - [[5,6,2][3,1,0][7,8,4]]
Generated Nodes:
[[5,6,0][3,1,2][7,8,4]] - f(n) = 24 + 6 = 30
[[5,6,2][3,0,1][7,8,4]] - Already visited Node!
[[5,6,2][3,1,4][7,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,1,2][4,5,0][8,3,6]]
Generated Nodes:
[[7,1,0][4,5,2][8,3,6]] - Already visited Node!
[[7,1,2][4,0,5][8,3,6]] - f(n) = 24 + 7 = 31
[[7,1,2][4,5,6][8,3,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[4,0,1][5,3,2][7,8,6]]
Generated Nodes:
[[4,1,0][5,3,2][7,8,6]] - f(n) = 24 + 6 = 30
[[0,4,1][5,3,2][7,8,6]] - Already visited Node!
[[4,3,1][5,0,2][7,8,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,4,1][3,2,0][7,8,6]]
```

```
Generated Nodes:
[[5,4,0][3,2,1][7,8,6]] - Already visited Node!
[[5,4,1][3,0,2][7,8,6]] - Already visited Node!
[[5,4,1][3,2,6][7,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,2,3][0,7,1][8,6,4]]
Generated Nodes:
```

$$[[0,2,3][5,7,1][8,6,4]] - f(n) = 24 + 6 = 30$$

 $[[5,2,3][7,0,1][8,6,4]] - Already visited Node!$
 $[[5,2,3][8,7,1][0,6,4]] - f(n) = 24 + 6 = 30$

Node Chosen for Level 24 - [[5,2,3][7,6,1][8,0,4]]

Generated Nodes:

```
[[5,2,3][7,0,1][8,6,4]] - Already visited Node!
[[5,2,3][7,6,1][8,4,0]] - f(n) = 24 + 6 = 30
[[5,2,3][7,6,1][0,8,4]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 24 - [[5,2,3][7,1,4][8,0,6]]

Generated Nodes:

```
[[5,2,3][7,0,4][8,1,6]] - f(n) = 24 + 6 = 30
[[5,2,3][7,1,4][8,6,0]] - Already visited Node!
[[5,2,3][7,1,4][0,8,6]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 24 - [[5,0,2][6,1,3][7,8,4]]

Generated Nodes:

```
[[5,2,0][6,1,3][7,8,4]] - f(n) = 24 + 5 = 29
[[0,5,2][6,1,3][7,8,4]] - f(n) = 24 + 6 = 30
[[5,1,2][6,0,3][7,8,4]] - Already visited Node!
```

Node Chosen for Level 24 - [[5,1,2][6,3,0][7,8,4]]

Generated Nodes:

```
[[5,1,0][6,3,2][7,8,4]] - f(n) = 24 + 6 = 30
[[5,1,2][6,0,3][7,8,4]] - Already visited Node!
[[5,1,2][6,3,4][7,8,0]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 24 - [[5,2,3][0,7,1][8,6,4]]

```
[[0,2,3][5,7,1][8,6,4]] - f(n) = 24 + 6 = 30
[[5,2,3][7,0,1][8,6,4]] - Already visited Node!
```

```
[[5,2,3][8,7,1][0,6,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,3][7,6,1][8,0,4]]
Generated Nodes:
[[5,2,3][7,0,1][8,6,4]] - Already visited Node!
[[5,2,3][7,6,1][8,4,0]] - f(n) = 24 + 6 = 30
[[5,2,3][7,6,1][0,8,4]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,2,3][7,1,4][8,0,6]]
Generated Nodes:
[[5,2,3][7,0,4][8,1,6]] - f(n) = 24 + 6 = 30
[[5,2,3][7,1,4][8,6,0]] - Already visited Node!
[[5,2,3][7,1,4][0,8,6]] - f(n) = 24 + 5 = 29
Node Chosen for Level 25 - [[1,5,0][4,2,8][7,3,6]]
Generated Nodes:
[[1,0,5][4,2,8][7,3,6]] - f(n) = 25 + 5 = 30
[[1,5,8][4,2,0][7,3,6]] - Already visited Node!
Node Chosen for Level 25 - [[1,5,8][4,3,2][7,6,0]]
Generated Nodes:
[[1,5,8][4,3,0][7,6,2]] - f(n) = 25 + 5 = 30
[[1,5,8][4,3,2][7,0,6]] - Already visited Node!
Node Chosen for Level 25 - [[1,2,8][7,5,4][3,6,0]]
Generated Nodes:
[[1,2,8][7,5,0][3,6,4]] - Already visited Node!
[[1,2,8][7,5,4][3,0,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[8,5,0][4,2,6][7,3,1]]
Generated Nodes:
[[8,0,5][4,2,6][7,3,1]] - Already visited Node!
[[8,5,6][4,2,0][7,3,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[8,2,7][3,5,6][0,1,4]]
Generated Nodes:
[[8,2,7][0,5,6][3,1,4]] - f(n) = 25 + 5 = 30
[[8,2,7][3,5,6][1,0,4]] - Already visited Node!
```

```
Node Chosen for Level 26 - [[1,8,2][4,5,0][7,3,6]]
Generated Nodes:
[[1,8,0][4,5,2][7,3,6]] - Already visited Node!
[[1,8,2][4,0,5][7,3,6]] - f(n) = 26 + 5 = 31
[[1,8,2][4,5,6][7,3,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 26 - [[1,5,2][4,3,0][7,8,6]]
Generated Nodes:
[[1,5,0][4,3,2][7,8,6]] - Already visited Node!
[[1,5,2][4,0,3][7,8,6]] - f(n) = 26 + 4 = 30
[[1,5,2][4,3,6][7,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 26 - [[1,3,5][4,2,0][7,8,6]]
Generated Nodes:
[[1,3,0][4,2,5][7,8,6]] - f(n) = 26 + 4 = 30
[[1,3,5][4,0,2][7,8,6]] - Already visited Node!
[[1,3,5][4,2,6][7,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 24 - [[7,2,6][3,4,0][1,8,5]]
Generated Nodes:
[[7,2,0][3,4,6][1,8,5]] - f(n) = 24 + 5 = 29
[[7,2,6][3,0,4][1,8,5]] - f(n) = 24 + 6 = 30
[[7,2,6][3,4,5][1,8,0]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,6][0,4,5][1,8,3]]
Generated Nodes:
[[0,2,6][7,4,5][1,8,3]] - f(n) = 24 + 6 = 30
[[7,2,6][4,0,5][1,8,3]] - Already visited Node!
[[7,2,6][1,4,5][0,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[0,7,2][3,5,1][4,6,8]]
Generated Nodes:
[[7,0,2][3,5,1][4,6,8]] - Already visited Node!
[[3,7,2][0,5,1][4,6,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,8,6][7,5,1][3,4,0]]
Generated Nodes:
```

```
[[2,8,6][7,5,0][3,4,1]] - Already visited Node!
[[2,8,6][7,5,1][3,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,8,0][7,5,1][3,6,4]]
Generated Nodes:
[[2,0,8][7,5,1][3,6,4]] - f(n) = 23 + 7 = 30
[[2,8,1][7,5,0][3,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[2,8,1][7,5,4][3,6,0]]
Generated Nodes:
[[2,8,1][7,5,0][3,6,4]] - Already visited Node!
[[2,8,1][7,5,4][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,1,0][7,5,4][8,3,6]]
Generated Nodes:
[[2,0,1][7,5,4][8,3,6]] - Already visited Node!
[[2,1,4][7,5,0][8,3,6]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,2][4,8,6][3,5,1]]
Generated Nodes:
[[7,2,0][4,8,6][3,5,1]] - f(n) = 24 + 5 = 29
[[0,7,2][4,8,6][3,5,1]] - Already visited Node!
[[7,8,2][4,0,6][3,5,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,6][0,3,1][5,8,4]]
Generated Nodes:
[[0,2,6][7,3,1][5,8,4]] - f(n) = 24 + 6 = 30
[[7,2,6][3,0,1][5,8,4]] - Already visited Node!
[[7,2,6][5,3,1][0,8,4]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,1][5,4,6][8,0,3]]
Generated Nodes:
[[7,2,1][5,0,6][8,4,3]] - f(n) = 24 + 6 = 30
[[7,2,1][5,4,6][8,3,0]] - Already visited Node!
[[7,2,1][5,4,6][0,8,3]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,2,1][0,3,4][5,8,6]]
Generated Nodes:
```

```
[[0,2,1][7,3,4][5,8,6]] - f(n) = 24 + 6 = 30
[[7,2,1][3,0,4][5,8,6]] - Already visited Node!
[[7,2,1][5,3,4][0,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,8,0][2,5,7][3,1,6]]
Generated Nodes:
[[4,0,8][2,5,7][3,1,6]] - f(n) = 23 + 7 = 30
[[4,8,7][2,5,0][3,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,6,0][8,5,4][3,2,1]]
Generated Nodes:
[[7,0,6][8,5,4][3,2,1]] - Already visited Node!
[[7,6,4][8,5,0][3,2,1]] - Already visited Node!
Node Chosen for Level 23 - [[0,7,6][8,5,4][3,2,1]]
Generated Nodes:
[[7,0,6][8,5,4][3,2,1]] - Already visited Node!
[[8,7,6][0,5,4][3,2,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,4][2,5,1][8,3,6]]
Generated Nodes:
[[7,0,4][2,5,1][8,3,6]] - Already visited Node!
[[2,7,4][0,5,1][8,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[2,7,4][8,5,1][0,3,6]]
Generated Nodes:
[[2,7,4][0,5,1][8,3,6]] - Already visited Node!
[[2,7,4][8,5,1][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[1,2,5][8,7,0][3,6,4]]
Generated Nodes:
[[1,2,0][8,7,5][3,6,4]] - Already visited Node!
[[1,2,5][8,0,7][3,6,4]] - f(n) = 24 + 6 = 30
[[1,2,5][8,7,4][3,6,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,8][3,4,6][1,0,5]]
Generated Nodes:
[[7,2,8][3,0,6][1,4,5]] - Already visited Node!
```

```
[[7,2,8][3,4,6][1,5,0]] - Already visited Node!
[[7,2,8][3,4,6][0,1,5]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[0,7,2][3,5,4][6,1,8]]
Generated Nodes:
[[7,0,2][3,5,4][6,1,8]] - Already visited Node!
[[3,7,2][0,5,4][6,1,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[3,2,1][5,7,0][6,8,4]]
Generated Nodes:
[[3,2,0][5,7,1][6,8,4]] - Already visited Node!
[[3,2,1][5,0,7][6,8,4]] - f(n) = 24 + 6 = 30
[[3,2,1][5,7,4][6,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,4][1,3,0][5,8,6]]
Generated Nodes:
[[7,2,0][1,3,4][5,8,6]] - Already visited Node!
[[7,2,4][1,0,3][5,8,6]] - f(n) = 24 + 6 = 30
[[7,2,4][1,3,6][5,8,0]] - Already visited Node!
Node Chosen for Level 24 - [[5,0,2][4,8,6][1,7,3]]
Generated Nodes:
[[5,2,0][4,8,6][1,7,3]] - f(n) = 24 + 5 = 29
[[0,5,2][4,8,6][1,7,3]] - f(n) = 24 + 6 = 30
[[5,8,2][4,0,6][1,7,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,8,2][4,7,6][1,0,3]]
Generated Nodes:
[[5,8,2][4,0,6][1,7,3]] - Already visited Node!
[[5,8,2][4,7,6][1,3,0]] - f(n) = 24 + 6 = 30
[[5,8,2][4,7,6][0,1,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[0,3,4][2,5,1][7,8,6]]
Generated Nodes:
[[3,0,4][2,5,1][7,8,6]] - f(n) = 25 + 5 = 30
[[2,3,4][0,5,1][7,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[1,5,2][7,4,0][3,8,6]]
Generated Nodes:
```

```
[[1,5,0][7,4,2][3,8,6]] - f(n) = 24 + 6 = 30
[[1,5,2][7,0,4][3,8,6]] - Already visited Node!
[[1,5,2][7,4,6][3,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,5,2][0,7,4][3,8,6]]
Generated Nodes:
[[0,5,2][1,7,4][3,8,6]] - f(n) = 24 + 7 = 31
[[1,5,2][7,0,4][3,8,6]] - Already visited Node!
[[1,5,2][3,7,4][0,8,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[0,2,6][8,5,4][7,3,1]]
Generated Nodes:
[[2,0,6][8,5,4][7,3,1]] - f(n) = 25 + 6 = 31
[[8,2,6][0,5,4][7,3,1]] - Already visited Node!
Node Chosen for Level 25 - [[0,2,4][3,5,6][1,7,8]]
Generated Nodes:
[[2,0,4][3,5,6][1,7,8]] - f(n) = 25 + 6 = 31
[[3,2,4][0,5,6][1,7,8]] - Already visited Node!
Node Chosen for Level 25 - [[3,2,4][1,5,6][0,7,8]]
Generated Nodes:
[[3,2,4][0,5,6][1,7,8]] - Already visited Node!
[[3,2,4][1,5,6][7,0,8]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[0,7,2][4,5,1][3,8,6]]
Generated Nodes:
[[7,0,2][4,5,1][3,8,6]] - Already visited Node!
[[4,7,2][0,5,1][3,8,6]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[1,7,2][0,6,3][5,8,4]]
Generated Nodes:
[[0,7,2][1,6,3][5,8,4]] - f(n) = 24 + 7 = 31
[[1,7,2][6,0,3][5,8,4]] - f(n) = 24 + 6 = 30
[[1,7,2][5,6,3][0,8,4]] - Already visited Node!
Node Chosen for Level 26 - [[3,2,4][1,5,0][7,8,6]]
Generated Nodes:
```

```
[[3,2,0][1,5,4][7,8,6]] - Already visited Node!
[[3,2,4][1,0,5][7,8,6]] - f(n) = 26 + 5 = 31
[[3,2,4][1,5,6][7,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 23 - [[1,3,2][7,0,4][8,5,6]]
Generated Nodes:
[[1,0,2][7,3,4][8,5,6]] - f(n) = 23 + 7 = 30
[[1,3,2][7,4,0][8,5,6]] - f(n) = 23 + 7 = 30
[[1,3,2][0,7,4][8,5,6]] - Already visited Node!
[[1,3,2][7,5,4][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,3,2][8,7,4][0,5,6]]
Generated Nodes:
[[1,3,2][0,7,4][8,5,6]] - Already visited Node!
[[1,3,2][8,7,4][5,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[7,2,4][0,6,3][1,8,5]]
Generated Nodes:
[[0,2,4][7,6,3][1,8,5]] - f(n) = 24 + 6 = 30
[[7,2,4][6,0,3][1,8,5]] - f(n) = 24 + 6 = 30
[[7,2,4][1,6,3][0,8,5]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,5][0,8,6][4,3,1]]
Generated Nodes:
[[0,2,5][7,8,6][4,3,1]] - f(n) = 24 + 6 = 30
[[7,2,5][8,0,6][4,3,1]] - Already visited Node!
[[7,2,5][4,8,6][0,3,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,2,5][8,3,6][4,0,1]]
Generated Nodes:
[[7,2,5][8,0,6][4,3,1]] - Already visited Node!
[[7,2,5][8,3,6][4,1,0]] - f(n) = 24 + 6 = 30
[[7,2,5][8,3,6][0,4,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[2,4,8][5,1,6][7,0,3]]
Generated Nodes:
[[2,4,8][5,0,6][7,1,3]] - f(n) = 24 + 6 = 30
[[2,4,8][5,1,6][7,3,0]] - Already visited Node!
[[2,4,8][5,1,6][0,7,3]] - f(n) = 24 + 7 = 31
```

```
Node Chosen for Level 24 - [[2,1,4][5,8,6][7,0,3]]
Generated Nodes:
[[2,1,4][5,0,6][7,8,3]] - Already visited Node!
[[2,1,4][5,8,6][7,3,0]] - Already visited Node!
[[2,1,4][5,8,6][0,7,3]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,4,8][1,2,6][7,0,3]]
Generated Nodes:
[[5,4,8][1,0,6][7,2,3]] - f(n) = 24 + 6 = 30
[[5,4,8][1,2,6][7,3,0]] - Already visited Node!
[[5,4,8][1,2,6][0,7,3]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[3,0,2][4,7,6][5,1,8]]
Generated Nodes:
[[3,2,0][4,7,6][5,1,8]] - f(n) = 24 + 5 = 29
[[0,3,2][4,7,6][5,1,8]] - f(n) = 24 + 6 = 30
[[3,7,2][4,0,6][5,1,8]] - Already visited Node!
Node Chosen for Level 24 - [[3,7,2][4,1,6][5,0,8]]
Generated Nodes:
[[3,7,2][4,0,6][5,1,8]] - Already visited Node!
[[3,7,2][4,1,6][5,8,0]] - f(n) = 24 + 5 = 29
[[3,7,2][4,1,6][0,5,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,1][7,6,0][4,8,3]]
Generated Nodes:
[[5,2,0][7,6,1][4,8,3]] - Already visited Node!
[[5,2,1][7,0,6][4,8,3]] - f(n) = 24 + 5 = 29
[[5,2,1][7,6,3][4,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[8,7,6][2,5,1][3,4,0]]
Generated Nodes:
[[8,7,6][2,5,0][3,4,1]] - Already visited Node!
[[8,7,6][2,5,1][3,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,6,7][8,5,2][3,4,1]]
Generated Nodes:
```

```
[[6,0,7][8,5,2][3,4,1]] - f(n) = 23 + 7 = 30
[[8,6,7][0,5,2][3,4,1]] - Already visited Node!
Node Chosen for Level 23 - [[8,6,7][3,5,2][0,4,1]]
Generated Nodes:
[[8,6,7][0,5,2][3,4,1]] - Already visited Node!
[[8,6,7][3,5,2][4,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,0][2,5,1][3,6,4]]
Generated Nodes:
[[8,0,7][2,5,1][3,6,4]] - f(n) = 23 + 7 = 30
[[8,7,1][2,5,0][3,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,1][2,5,4][3,6,0]]
Generated Nodes:
[[8,7,1][2,5,0][3,6,4]] - Already visited Node!
[[8,7,1][2,5,4][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[7,2,6][3,1,0][5,8,4]]
Generated Nodes:
[[7,2,0][3,1,6][5,8,4]] - f(n) = 24 + 5 = 29
[[7,2,6][3,0,1][5,8,4]] - Already visited Node!
[[7,2,6][3,1,4][5,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,6][0,3,1][5,8,4]]
Generated Nodes:
[[0,2,6][7,3,1][5,8,4]] - f(n) = 24 + 6 = 30
[[7,2,6][3,0,1][5,8,4]] - Already visited Node!
[[7,2,6][5,3,1][0,8,4]] - Already visited Node!
Node Chosen for Level 23 - [[0,4,8][2,5,7][3,1,6]]
Generated Nodes:
[[4,0,8][2,5,7][3,1,6]] - f(n) = 23 + 7 = 30
[[2,4,8][0,5,7][3,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[2,4,8][3,5,7][0,1,6]]
Generated Nodes:
[[2,4,8][0,5,7][3,1,6]] - Already visited Node!
```

```
[[2,4,8][3,5,7][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,3][7,8,2][1,6,4]]
Generated Nodes:
[[5,0,3][7,8,2][1,6,4]] - Already visited Node!
[[7,5,3][0,8,2][1,6,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,8,3][7,0,2][1,6,4]]
Generated Nodes:
[[5,0,3][7,8,2][1,6,4]] - Already visited Node!
[[5,8,3][7,2,0][1,6,4]] - f(n) = 23 + 7 = 30
[[5,8,3][0,7,2][1,6,4]] - f(n) = 23 + 7 = 30
[[5,8,3][7,6,2][1,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[3,8,2][4,7,6][5,0,1]]
Generated Nodes:
[[3,8,2][4,0,6][5,7,1]] - f(n) = 24 + 6 = 30
[[3,8,2][4,7,6][5,1,0]] - f(n) = 24 + 6 = 30
[[3,8,2][4,7,6][0,5,1]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,1][3,4,0][5,8,6]]
Generated Nodes:
[[7,2,0][3,4,1][5,8,6]] - f(n) = 24 + 6 = 30
[[7,2,1][3,0,4][5,8,6]] - Already visited Node!
[[7,2,1][3,4,6][5,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,2,1][0,3,4][5,8,6]]
Generated Nodes:
[[0,2,1][7,3,4][5,8,6]] - f(n) = 24 + 6 = 30
[[7,2,1][3,0,4][5,8,6]] - Already visited Node!
[[7,2,1][5,3,4][0,8,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,8,5][7,0,2][4,3,6]]
Generated Nodes:
[[1,0,5][7,8,2][4,3,6]] - f(n) = 23 + 7 = 30
[[1,8,5][7,2,0][4,3,6]] - f(n) = 23 + 7 = 30
[[1,8,5][0,7,2][4,3,6]] - Already visited Node!
[[1,8,5][7,3,2][4,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,6,0][8,5,4][3,2,1]]
```

```
Generated Nodes:
[[7,0,6][8,5,4][3,2,1]] - Already visited Node!
[[7,6,4][8,5,0][3,2,1]] - Already visited Node!
Node Chosen for Level 23 - [[7,6,4][8,5,1][3,2,0]]
Generated Nodes:
[[7,6,4][8,5,0][3,2,1]] - Already visited Node!
[[7,6,4][8,5,1][3,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,4,0][2,5,1][8,3,6]]
Generated Nodes:
[[7,0,4][2,5,1][8,3,6]] - Already visited Node!
[[7,4,1][2,5,0][8,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,4][2,5,1][8,3,6]]
Generated Nodes:
[[7,0,4][2,5,1][8,3,6]] - Already visited Node!
[[2,7,4][0,5,1][8,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,7,5][6,0,2][8,4,3]]
Generated Nodes:
[[1,0,5][6,7,2][8,4,3]] - f(n) = 23 + 7 = 30
[[1,7,5][6,2,0][8,4,3]] - f(n) = 23 + 7 = 30
[[1,7,5][0,6,2][8,4,3]] - Already visited Node!
[[1,7,5][6,4,2][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,7,5][8,6,2][0,4,3]]
Generated Nodes:
[[1,7,5][0,6,2][8,4,3]] - Already visited Node!
[[1,7,5][8,6,2][4,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 25 - [[8,4,0][2,5,6][7,3,1]]
Generated Nodes:
[[8,0,4][2,5,6][7,3,1]] - Already visited Node!
[[8,4,6][2,5,0][7,3,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[7,2,8][0,3,6][1,4,5]]
```

```
[[0,2,8][7,3,6][1,4,5]] - f(n) = 24 + 6 = 30
[[7,2,8][3,0,6][1,4,5]] - Already visited Node!
[[7,2,8][1,3,6][0,4,5]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,8][3,4,6][1,0,5]]
Generated Nodes:
[[7,2,8][3,0,6][1,4,5]] - Already visited Node!
[[7,2,8][3,4,6][1,5,0]] - Already visited Node!
[[7,2,8][3,4,6][0,1,5]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[0,1,7][8,5,2][3,6,4]]
Generated Nodes:
[[1,0,7][8,5,2][3,6,4]] - Already visited Node!
[[8,1,7][0,5,2][3,6,4]] - Already visited Node!
Node Chosen for Level 23 - [[8,1,7][3,5,2][0,6,4]]
Generated Nodes:
[[8,1,7][0,5,2][3,6,4]] - Already visited Node!
[[8,1,7][3,5,2][6,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[7,3,5][4,2,6][8,0,1]]
Generated Nodes:
[[7,3,5][4,0,6][8,2,1]] - f(n) = 24 + 6 = 30
[[7,3,5][4,2,6][8,1,0]] - Already visited Node!
[[7,3,5][4,2,6][0,8,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 23 - [[7,4,0][3,5,8][1,2,6]]
Generated Nodes:
[[7,0,4][3,5,8][1,2,6]] - Already visited Node!
[[7,4,8][3,5,0][1,2,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,4][3,5,8][1,2,6]]
Generated Nodes:
[[7,0,4][3,5,8][1,2,6]] - Already visited Node!
[[3,7,4][0,5,8][1,2,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[5,0,7][4,3,2][1,8,6]]
```

```
Generated Nodes:
```

```
[[5,7,0][4,3,2][1,8,6]] - f(n) = 24 + 6 = 30

[[0,5,7][4,3,2][1,8,6]] - f(n) = 24 + 6 = 30

[[5,3,7][4,0,2][1,8,6]] - Already visited Node!
```

Node Chosen for Level 24 - [[5,3,7][4,2,0][1,8,6]]

Generated Nodes:

```
[[5,3,0][4,2,7][1,8,6]] - f(n) = 24 + 6 = 30

[[5,3,7][4,0,2][1,8,6]] - Already visited Node!

[[5,3,7][4,2,6][1,8,0]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 24 - [[7 2 4][0 6 3][1 8 5]]

Node Chosen for Level 24 - [[7,2,4][0,6,3][1,8,5]]

Generated Nodes:

```
[[0,2,4][7,6,3][1,8,5]] - f(n) = 24 + 6 = 30

[[7,2,4][6,0,3][1,8,5]] - f(n) = 24 + 6 = 30

[[7,2,4][1,6,3][0,8,5]] - Already visited Node!
```

Node Chosen for Level 24 - [[1,4,7][5,2,6][8,0,3]]

Generated Nodes:

```
[[1,4,7][5,0,6][8,2,3]] - f(n) = 24 + 6 = 30

[[1,4,7][5,2,6][8,3,0]] - Already visited Node!

[[1,4,7][5,2,6][0,8,3]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 24 - [[1,4,7][0,3,2][5,8,6]]

Generated Nodes:

[[0,4,7][1,3,2][5,8,6]] - f(n) = 24 + 7 = 31 [[1,4,7][3,0,2][5,8,6]] - f(n) = 24 + 6 = 30[[1,4,7][5,3,2][0,8,6]] - Already visited Node!

Node Chosen for Level 24 - [[1,7,2][0,6,3][5,8,4]]

Generated Nodes:

```
[[0,7,2][1,6,3][5,8,4]] - f(n) = 24 + 7 = 31

[[1,7,2][6,0,3][5,8,4]] - f(n) = 24 + 6 = 30

[[1,7,2][5,6,3][0,8,4]] - Already visited Node!
```

Node Chosen for Level 23 - [[0,8,2][3,5,7][1,4,6]]

```
[[8,0,2][3,5,7][1,4,6]] - Already visited Node! [[3,8,2][0,5,7][1,4,6]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[8,4,0][3,5,7][1,6,2]]
Generated Nodes:
[[8,0,4][3,5,7][1,6,2]] - f(n) = 23 + 7 = 30
[[8,4,7][3,5,0][1,6,2]] - Already visited Node!
Node Chosen for Level 23 - [[8,4,7][3,5,2][1,6,0]]
Generated Nodes:
[[8,4,7][3,5,0][1,6,2]] - Already visited Node!
[[8,4,7][3,5,2][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,0][3,5,4][1,2,6]]
Generated Nodes:
[[8,0,7][3,5,4][1,2,6]] - f(n) = 23 + 7 = 30
[[8,7,4][3,5,0][1,2,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,5,2][1,0,8][7,3,6]]
Generated Nodes:
[[4,0,2][1,5,8][7,3,6]] - f(n) = 23 + 6 = 29
[[4,5,2][1,8,0][7,3,6]] - f(n) = 23 + 7 = 30
[[4,5,2][0,1,8][7,3,6]] - Already visited Node!
[[4,5,2][1,3,8][7,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,8,0][3,5,4][1,6,2]]
Generated Nodes:
[[7,0,8][3,5,4][1,6,2]] - f(n) = 23 + 7 = 30
[[7,8,4][3,5,0][1,6,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,8,4][3,5,2][1,6,0]]
Generated Nodes:
[[7,8,4][3,5,0][1,6,2]] - Already visited Node!
[[7,8,4][3,5,2][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,0][1,5,4][3,6,2]]
Generated Nodes:
[[8,0,7][1,5,4][3,6,2]] - f(n) = 23 + 7 = 30
[[8,7,4][1,5,0][3,6,2]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[8,7,4][1,5,2][3,6,0]]
Generated Nodes:
[[8,7,4][1,5,0][3,6,2]] - Already visited Node!
[[8,7,4][1,5,2][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,4,0][7,8,5][3,6,2]]
Generated Nodes:
[[1,0,4][7,8,5][3,6,2]] - Already visited Node!
[[1,4,5][7,8,0][3,6,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,8,4][7,0,5][3,6,2]]
Generated Nodes:
[[1,0,4][7,8,5][3,6,2]] - Already visited Node!
[[1,8,4][7,5,0][3,6,2]] - f(n) = 23 + 6 = 29
[[1,8,4][0,7,5][3,6,2]] - f(n) = 23 + 7 = 30
[[1,8,4][7,6,5][3,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,1][8,5,4][3,6,2]]
Generated Nodes:
[[7,0,1][8,5,4][3,6,2]] - Already visited Node!
[[8,7,1][0,5,4][3,6,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,2][7,5,1][8,3,6]]
Generated Nodes:
[[4,0,2][7,5,1][8,3,6]] - Already visited Node!
[[7,4,2][0,5,1][8,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,8,0][3,5,2][1,4,6]]
Generated Nodes:
[[7,0,8][3,5,2][1,4,6]] - Already visited Node!
[[7,8,2][3,5,0][1,4,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,8][3,5,2][1,4,6]]
Generated Nodes:
[[7,0,8][3,5,2][1,4,6]] - Already visited Node!
[[3,7,8][0,5,2][1,4,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,4,7][8,5,2][3,1,6]]
```

```
Generated Nodes:
[[4,0,7][8,5,2][3,1,6]] - f(n) = 23 + 7 = 30
[[8,4,7][0,5,2][3,1,6]] - Already visited Node!
Node Chosen for Level 23 - [[8,4,7][3,5,2][0,1,6]]
Generated Nodes:
[[8,4,7][0,5,2][3,1,6]] - Already visited Node!
[[8,4,7][3,5,2][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,3,2][8,5,4][1,7,6]]
Generated Nodes:
[[3,0,2][8,5,4][1,7,6]] - Already visited Node!
[[8,3,2][0,5,4][1,7,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,5,2][1,8,4][7,6,0]]
Generated Nodes:
[[3,5,2][1,8,0][7,6,4]] - f(n) = 23 + 7 = 30
[[3,5,2][1,8,4][7,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[0,3,2][8,5,4][1,7,6]]
Generated Nodes:
[[3,0,2][8,5,4][1,7,6]] - Already visited Node!
[[8,3,2][0,5,4][1,7,6]] - Already visited Node!
Node Chosen for Level 23 - [[8,3,2][1,5,4][0,7,6]]
Generated Nodes:
[[8,3,2][0,5,4][1,7,6]] - Already visited Node!
[[8,3,2][1,5,4][7,0,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,8,0][1,5,2][3,6,4]]
Generated Nodes:
[[7,0,8][1,5,2][3,6,4]] - Already visited Node!
[[7,8,2][1,5,0][3,6,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,8][1,5,2][3,6,4]]
Generated Nodes:
```

```
[[7,0,8][1,5,2][3,6,4]] - Already visited Node!
[[1,7,8][0,5,2][3,6,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,8,0][5,7,2][3,6,4]]
Generated Nodes:
[[1,0,8][5,7,2][3,6,4]] - Already visited Node!
[[1,8,2][5,7,0][3,6,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,7,8][5,0,2][3,6,4]]
Generated Nodes:
[[1,0,8][5,7,2][3,6,4]] - Already visited Node!
[[1,7,8][5,2,0][3,6,4]] - f(n) = 23 + 7 = 30
[[1,7,8][0,5,2][3,6,4]] - f(n) =
                                  23 + 6 = 29
[[1,7,8][5,6,2][3,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,1,8][5,6,2][7,3,4]]
Generated Nodes:
[[1,0,8][5,6,2][7,3,4]] - f(n) = 23 + 6 = 29
[[5,1,8][0,6,2][7,3,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,1,8][6,0,2][7,3,4]]
Generated Nodes:
[[5,0,8][6,1,2][7,3,4]] - f(n) = 23 + 7 = 30
[[5,1,8][6,2,0][7,3,4]] - f(n) = 23 + 7 = 30
[[5,1,8][0,6,2][7,3,4]] - Already visited Node!
[[5,1,8][6,3,2][7,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,5,3][7,8,2][1,6,4]]
Generated Nodes:
[[5,0,3][7,8,2][1,6,4]] - Already visited Node!
[[7,5,3][0,8,2][1,6,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,8,3][7,0,2][1,6,4]]
Generated Nodes:
[[5,0,3][7,8,2][1,6,4]] - Already visited Node!
[[5,8,3][7,2,0][1,6,4]] - f(n) = 23 + 7 = 30
[[5,8,3][0,7,2][1,6,4]] - f(n) =
                                  23 + 7 = 30
[[5,8,3][7,6,2][1,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,3,2][5,6,8][7,1,4]]
```

```
Generated Nodes:
[[3,0,2][5,6,8][7,1,4]] - f(n) = 23 + 7 = 30
[[5,3,2][0,6,8][7,1,4]] - Already visited Node!
Node Chosen for Level 23 - [[5,3,2][6,0,8][7,1,4]]
Generated Nodes:
[[5,0,2][6,3,8][7,1,4]] - f(n) = 23 + 7 = 30
[[5,3,2][6,8,0][7,1,4]] - f(n) = 23 + 7 = 30
[[5,3,2][0,6,8][7,1,4]] - Already visited Node!
[[5,3,2][6,1,8][7,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,2][1,5,3][6,4,8]]
Generated Nodes:
[[7,0,2][1,5,3][6,4,8]] - Already visited Node!
[[1,7,2][0,5,3][6,4,8]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[0,8,2][1,5,7][3,6,4]]
Generated Nodes:
[[8,0,2][1,5,7][3,6,4]] - Already visited Node!
[[1,8,2][0,5,7][3,6,4]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[1,8,7][2,0,5][3,6,4]]
Generated Nodes:
[[1,0,7][2,8,5][3,6,4]] - f(n) = 23 + 7 = 30
[[1,8,7][2,5,0][3,6,4]] - f(n) = 23 + 6 = 29
[[1,8,7][0,2,5][3,6,4]] - Already visited Node!
[[1,8,7][2,6,5][3,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,8,7][3,2,5][0,6,4]]
Generated Nodes:
[[1,8,7][0,2,5][3,6,4]] - Already visited Node!
[[1,8,7][3,2,5][6,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,0][2,5,1][3,6,4]]
Generated Nodes:
[[8,0,7][2,5,1][3,6,4]] - f(n) = 23 + 7 = 30
[[8,7,1][2,5,0][3,6,4]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[8,7,1][2,5,4][3,6,0]]
Generated Nodes:
[[8,7,1][2,5,0][3,6,4]] - Already visited Node!
[[8,7,1][2,5,4][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,5,0][7,8,4][3,2,6]]
Generated Nodes:
[[1,0,5][7,8,4][3,2,6]] - Already visited Node!
[[1,5,4][7,8,0][3,2,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,8,5][7,0,4][3,2,6]]
Generated Nodes:
[[1,0,5][7,8,4][3,2,6]] - Already visited Node!
[[1,8,5][7,4,0][3,2,6]] - f(n) = 23 + 7 = 30
[[1,8,5][0,7,4][3,2,6]] - f(n) = 23 + 7 = 30
[[1,8,5][7,2,4][3,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[1,5,0][7,2,4][8,3,6]]
Generated Nodes:
[[1,0,5][7,2,4][8,3,6]] - Already visited Node!
[[1,5,4][7,2,0][8,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,6,0][8,5,1][3,4,2]]
Generated Nodes:
[[7,0,6][8,5,1][3,4,2]] - f(n) = 23 + 7 = 30
[[7,6,1][8,5,0][3,4,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,6,1][8,5,2][3,4,0]]
Generated Nodes:
[[7,6,1][8,5,0][3,4,2]] - Already visited Node!
[[7,6,1][8,5,2][3,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,2][6,5,4][8,1,3]]
Generated Nodes:
[[7,0,2][6,5,4][8,1,3]] - Already visited Node!
[[6,7,2][0,5,4][8,1,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,2][6,5,3][8,4,1]]
```

```
Generated Nodes:
[[7,0,2][6,5,3][8,4,1]] - Already visited Node!
[[6,7,2][0,5,3][8,4,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[1,8,2][5,0,4][3,7,6]]
Generated Nodes:
[[1,0,2][5,8,4][3,7,6]] - Already visited Node!
[[1,8,2][5,4,0][3,7,6]] - f(n) = 23 + 7 = 30
[[1,8,2][0,5,4][3,7,6]] - f(n) =
                                23 + 6 = 29
[[1,8,2][5,7,4][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,7,2][8,5,3][6,1,4]]
Generated Nodes:
[[7,0,2][8,5,3][6,1,4]] - Already visited Node!
[[8,7,2][0,5,3][6,1,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[5,2,4][3,6,0][1,8,7]]
Generated Nodes:
[[5,2,0][3,6,4][1,8,7]] - f(n) = 24 + 6 = 30
[[5,2,4][3,0,6][1,8,7]] - Already visited Node!
[[5,2,4][3,6,7][1,8,0]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,4][3,7,0][6,8,1]]
Generated Nodes:
[[5,2,0][3,7,4][6,8,1]] - f(n) = 24 + 6 = 30
[[5,2,4][3,0,7][6,8,1]] - f(n) = 24 + 6 = 30
[[5,2,4][3,7,1][6,8,0]] - Already visited Node!
Node Chosen for Level 24 - [[2,0,5][4,7,6][8,3,1]]
Generated Nodes:
[[2,5,0][4,7,6][8,3,1]] - f(n) = 24 + 6 = 30
[[0,2,5][4,7,6][8,3,1]] - Already visited Node!
[[2,7,5][4,0,6][8,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[2,7,5][4,3,6][8,0,1]]
Generated Nodes:
[[2,7,5][4,0,6][8,3,1]] - Already visited Node!
[[2,7,5][4,3,6][8,1,0]] - f(n) = 24 + 6 = 30
```

```
[[2,7,5][4,3,6][0,8,1]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,2,4][8,1,6][3,0,7]]
Generated Nodes:
[[5,2,4][8,0,6][3,1,7]] - f(n) = 24 + 6 = 30
[[5,2,4][8,1,6][3,7,0]] - Already visited Node!
[[5,2,4][8,1,6][0,3,7]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,4,8][1,2,6][7,0,3]]
Generated Nodes:
[[5,4,8][1,0,6][7,2,3]] - f(n) = 24 + 6 = 30
[[5,4,8][1,2,6][7,3,0]] - Already visited Node!
[[5,4,8][1,2,6][0,7,3]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,2,1][0,7,6][3,4,8]]
Generated Nodes:
[[0,2,1][5,7,6][3,4,8]] - f(n) = 24 + 6 = 30
[[5,2,1][7,0,6][3,4,8]] - Already visited Node!
[[5,2,1][3,7,6][0,4,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,1][7,4,6][3,0,8]]
Generated Nodes:
[[5,2,1][7,0,6][3,4,8]] - Already visited Node!
[[5,2,1][7,4,6][3,8,0]] - Already visited Node!
[[5,2,1][7,4,6][0,3,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,5,2][7,4,0][3,8,6]]
Generated Nodes:
[[1,5,0][7,4,2][3,8,6]] - f(n) = 24 + 6 = 30
[[1,5,2][7,0,4][3,8,6]] - Already visited Node!
[[1,5,2][7,4,6][3,8,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,5,2][0,7,4][3,8,6]]
Generated Nodes:
[[0,5,2][1,7,4][3,8,6]] - f(n) = 24 + 7 = 31
[[1,5,2][7,0,4][3,8,6]] - Already visited Node!
[[1,5,2][3,7,4][0,8,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,2,8][0,7,5][3,6,4]]
```

```
Generated Nodes:
[[0,2,8][1,7,5][3,6,4]] - f(n) = 24 + 7 = 31
[[1,2,8][7,0,5][3,6,4]] - Already visited Node!
[[1,2,8][3,7,5][0,6,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,2,8][7,6,5][3,0,4]]
Generated Nodes:
[[1,2,8][7,0,5][3,6,4]] - Already visited Node!
[[1,2,8][7,6,5][3,4,0]] - f(n) = 24 + 6 = 30
[[1,2,8][7,6,5][0,3,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,8,5][0,7,6][3,4,2]]
Generated Nodes:
[[0,8,5][1,7,6][3,4,2]] - Already visited Node!
[[1,8,5][7,0,6][3,4,2]] - Already visited Node!
[[1,8,5][3,7,6][0,4,2]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,8,5][7,4,6][3,0,2]]
Generated Nodes:
[[1,8,5][7,0,6][3,4,2]] - Already visited Node!
[[1,8,5][7,4,6][3,2,0]] - f(n) = 24 + 6 = 30
[[1,8,5][7,4,6][0,3,2]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,7,5][8,2,6][3,0,4]]
Generated Nodes:
[[1,7,5][8,0,6][3,2,4]] - f(n) = 24 + 6 = 30
[[1,7,5][8,2,6][3,4,0]] - Already visited Node!
[[1,7,5][8,2,6][0,3,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[0,3,2][4,5,7][1,8,6]]
Generated Nodes:
[[3,0,2][4,5,7][1,8,6]] - Already visited Node!
[[4,3,2][0,5,7][1,8,6]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,5,2][8,0,6][7,4,3]]
Generated Nodes:
```

[[1,0,2][8,5,6][7,4,3]] - f(n) = 25 + 4 = 29 [[1,5,2][8,6,0][7,4,3]] - f(n) = 25 + 6 = 31[[1,5,2][0,8,6][7,4,3]] - Already visited Node!

```
[[1,5,2][8,4,6][7,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,5][4,8,0][3,1,6]]
Generated Nodes:
[[7,2,0][4,8,5][3,1,6]] - f(n) = 24 + 6 = 30
[[7,2,5][4,0,8][3,1,6]] - Already visited Node!
[[7,2,5][4,8,6][3,1,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,2,5][4,1,8][3,0,6]]
Generated Nodes:
[[7,2,5][4,0,8][3,1,6]] - Already visited Node!
[[7,2,5][4,1,8][3,6,0]] - f(n) = 24 + 6 = 30
[[7,2,5][4,1,8][0,3,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,0,2][4,8,6][3,1,7]]
Generated Nodes:
[[5,2,0][4,8,6][3,1,7]] - f(n) = 24 + 5 = 29
[[0,5,2][4,8,6][3,1,7]] - f(n) = 24 + 6 = 30
[[5,8,2][4,0,6][3,1,7]] - Already visited Node!
Node Chosen for Level 24 - [[5,8,2][4,1,6][3,0,7]]
Generated Nodes:
[[5,8,2][4,0,6][3,1,7]] - Already visited Node!
[[5,8,2][4,1,6][3,7,0]] - f(n) = 24 + 6 = 30
[[5,8,2][4,1,6][0,3,7]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,0,5][3,1,6][4,8,2]]
Generated Nodes:
[[7,5,0][3,1,6][4,8,2]] - f(n) = 24 + 6 = 30
[[0,7,5][3,1,6][4,8,2]] - f(n) = 24 + 6 = 30
[[7,1,5][3,0,6][4,8,2]] - Already visited Node!
Node Chosen for Level 24 - [[7,1,5][0,3,6][4,8,2]]
Generated Nodes:
[[0,1,5][7,3,6][4,8,2]] - f(n) = 24 + 6 = 30
[[7,1,5][3,0,6][4,8,2]] - Already visited Node!
[[7,1,5][4,3,6][0,8,2]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,0,5][4,1,6][8,3,2]]
```

```
Generated Nodes:
```

```
[[7,5,0][4,1,6][8,3,2]] - f(n) = 24 + 6 = 30

[[0,7,5][4,1,6][8,3,2]] - f(n) = 24 + 6 = 30

[[7,1,5][4,0,6][8,3,2]] - Already visited Node!
```

Node Chosen for Level 24 - [[7,1,5][4,3,6][8,0,2]]

Generated Nodes :

```
[[7,1,5][4,0,6][8,3,2]] - Already visited Node! [[7,1,5][4,3,6][8,2,0]] - f(n) = 24 + 6 = 30 [[7,1,5][4,3,6][0,8,2]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 24 - [[1,7,4][0,3,5][2,8,6]]

Generated Nodes:

[[0,7,4][1,3,5][2,8,6]] - f(n) = 24 + 7 = 31

[[1,7,4][3,0,5][2,8,6]] - f(n) = 24 + 6 = 30

[[1,7,4][2,3,5][0,8,6]] - Already visited Node!

Node Chosen for Level 24 - [[3,7,2][4,5,8][1,0,6]]

Generated Nodes:

```
[[3,7,2][4,0,8][1,5,6]] - f(n) = 24 + 7 = 31

[[3,7,2][4,5,8][1,6,0]] - f(n) = 24 + 6 = 30

[[3,7,2][4,5,8][0,1,6]] - Already visited Node!
```

Node Chosen for Level 24 - [[3,2,4][5,8,0][7,1,6]]

Generated Nodes :

[[3,2,0][5,8,4][7,1,6]] - Already visited Node!

[[3,2,4][5,0,8][7,1,6]] - f(n) = 24 + 6 = 30

[[3,2,4][5,8,6][7,1,0]] - f(n) = 24 + 5 = 29

Node Chosen for Level 24 - [[5,3,2][8,4,6][7,0,1]]

Generated Nodes:

```
[[5,3,2][8,0,6][7,4,1]] - f(n) = 24 + 6 = 30

[[5,3,2][8,4,6][7,1,0]] - Already visited Node!

[[5,3,2][8,4,6][0,7,1]] - f(n) = 24 + 7 = 31
```

Node Chosen for Level 25 - [[1,2,4][8,5,7][3,6,0]]

```
[[1,2,4][8,5,0][3,6,7]] - f(n) = 25 + 5 = 30
[[1,2,4][8,5,7][3,0,6]] - Already visited Node!
```

```
Node Chosen for Level 24 - [[7,4,8][2,5,6][3,0,1]]
Generated Nodes:
[[7,4,8][2,0,6][3,5,1]] - f(n) = 24 + 7 = 31
[[7,4,8][2,5,6][3,1,0]] - Already visited Node!
[[7,4,8][2,5,6][0,3,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[4,8,5][1,2,6][7,0,3]]
Generated Nodes:
[[4,8,5][1,0,6][7,2,3]] - f(n) = 24 + 6 = 30
[[4,8,5][1,2,6][7,3,0]] - Already visited Node!
[[4,8,5][1,2,6][0,7,3]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[5,4,8][1,2,6][7,0,3]]
Generated Nodes:
[[5,4,8][1,0,6][7,2,3]] - f(n) = 24 + 6 = 30
[[5,4,8][1,2,6][7,3,0]] - Already visited Node!
[[5,4,8][1,2,6][0,7,3]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[8,2,1][5,6,0][7,3,4]]
Generated Nodes:
[[8,2,0][5,6,1][7,3,4]] - Already visited Node!
[[8,2,1][5,0,6][7,3,4]] - f(n) = 24 + 5 = 29
[[8,2,1][5,6,4][7,3,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,1][6,8,0][7,3,4]]
Generated Nodes:
[[5,2,0][6,8,1][7,3,4]] - Already visited Node!
[[5,2,1][6,0,8][7,3,4]] - Already visited Node!
[[5,2,1][6,8,4][7,3,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,5,2][0,7,6][8,3,4]]
Generated Nodes:
[[0,5,2][1,7,6][8,3,4]] - f(n) = 24 + 7 = 31
[[1,5,2][7,0,6][8,3,4]] - Already visited Node!
[[1,5,2][8,7,6][0,3,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,5,2][7,3,6][8,0,4]]
Generated Nodes:
```

```
[[1,5,2][7,0,6][8,3,4]] - Already visited Node!
[[1,5,2][7,3,6][8,4,0]] - f(n) = 24 + 6 = 30
[[1,5,2][7,3,6][0,8,4]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[8,2,1][5,6,0][7,3,4]]
Generated Nodes:
[[8,2,0][5,6,1][7,3,4]] - Already visited Node!
[[8,2,1][5,0,6][7,3,4]] - f(n) = 24 + 5 = 29
[[8,2,1][5,6,4][7,3,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,2,1][6,8,0][7,3,4]]
Generated Nodes:
[[5,2,0][6,8,1][7,3,4]] - Already visited Node!
[[5,2,1][6,0,8][7,3,4]] - Already visited Node!
[[5,2,1][6,8,4][7,3,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,7,5][0,6,2][3,8,4]]
Generated Nodes:
[[0,7,5][1,6,2][3,8,4]] - f(n) = 24 + 7 = 31
[[1,7,5][6,0,2][3,8,4]] - f(n) = 24 + 6 = 30
[[1,7,5][3,6,2][0,8,4]] - Already visited Node!
Node Chosen for Level 25 - [[0,1,2][8,5,6][7,4,3]]
Generated Nodes:
[[1,0,2][8,5,6][7,4,3]] - f(n) = 25 + 4 = 29
[[8,1,2][0,5,6][7,4,3]] - Already visited Node!
Node Chosen for Level 25 - [[7,8,0][4,5,6][3,2,1]]
Generated Nodes:
[[7,0,8][4,5,6][3,2,1]] - Already visited Node!
[[7,8,6][4,5,0][3,2,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[0,7,8][4,5,6][3,2,1]]
Generated Nodes:
[[7,0,8][4,5,6][3,2,1]] - Already visited Node!
[[4,7,8][0,5,6][3,2,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[3,2,4][1,7,6][8,0,5]]
```

```
Generated Nodes:
[[3,2,4][1,0,6][8,7,5]] - f(n) = 24 + 6 = 30
[[3,2,4][1,7,6][8,5,0]] - Already visited Node!
[[3,2,4][1,7,6][0,8,5]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[3,7,2][0,4,6][1,8,5]]
Generated Nodes:
[[0,7,2][3,4,6][1,8,5]] - f(n) = 24 + 6 = 30
[[3,7,2][4,0,6][1,8,5]] - f(n) = 24 + 5 = 29
[[3,7,2][1,4,6][0,8,5]] - Already visited Node!
Node Chosen for Level 25 - [[1,4,0][2,5,8][7,3,6]]
Generated Nodes:
[[1,0,4][2,5,8][7,3,6]] - Already visited Node!
[[1,4,8][2,5,0][7,3,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[1,4,0][2,5,8][7,3,6]]
Generated Nodes:
[[1,0,4][2,5,8][7,3,6]] - Already visited Node!
[[1,4,8][2,5,0][7,3,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 27 - [[1,4,0][2,5,6][7,8,3]]
Generated Nodes:
[[1,0,4][2,5,6][7,8,3]] - Already visited Node!
[[1,4,6][2,5,0][7,8,3]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[1,4,0][2,5,6][7,8,3]]
Generated Nodes:
[[1,0,4][2,5,6][7,8,3]] - Already visited Node!
[[1,4,6][2,5,0][7,8,3]] - f(n) = 27 + 4 = 31
Node Chosen for Level 24 - [[5,2,8][4,7,0][3,1,6]]
Generated Nodes:
[[5,2,0][4,7,8][3,1,6]] - Already visited Node!
[[5,2,8][4,0,7][3,1,6]] - f(n) = 24 + 6 = 30
[[5,2,8][4,7,6][3,1,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[8,2,4][5,3,6][1,0,7]]
```

```
Generated Nodes:
```

$$[[8,2,4][5,0,6][1,3,7]] - f(n) = 24 + 6 = 30$$

 $[[8,2,4][5,3,6][1,7,0]] - Already visited Node!$
 $[[8,2,4][5,3,6][0,1,7]] - f(n) = 24 + 6 = 30$

Node Chosen for Level 24 - [[5,2,8][0,7,6][3,1,4]]

Generated Nodes:

```
[[0,2,8][5,7,6][3,1,4]] - f(n) = 24 + 6 = 30
[[5,2,8][7,0,6][3,1,4]] - Already visited Node!
[[5,2,8][3,7,6][0,1,4]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 24 - [[5,2,8][7,1,6][3,0,4]]

Generated Nodes:

[[5,2,8][7,0,6][3,1,4]] - Already visited Node!

$$[[5,2,8][7,1,6][3,4,0]] - f(n) = 24 + 6 = 30$$

$$[[5,2,8][7,1,6][0,3,4]] - f(n) = 24 + 6 = 30$$

Node Chosen for Level 24 - [[7,5,1][4,2,6][8,0,3]]

Generated Nodes:

```
[[7,5,1][4,0,6][8,2,3]] - f(n) = 24 + 6 = 30
[[7,5,1][4,2,6][8,3,0]] - Already visited Node!
[[7,5,1][4,2,6][0,8,3]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 24 - [[5,2,4][8,1,6][3,0,7]]

Generated Nodes:

[[5,2,4][8,0,6][3,1,7]] - f(n) = 24 + 6 = 30

$$[[5,2,4][8,1,6][0,3,7]] - f(n) = 24 + 6 = 30$$

Node Chosen for Level 25 - [[1,6,2][5,0,3][7,8,4]]

Generated Nodes:

```
[[1,0,2][5,6,3][7,8,4]] - Already visited Node!
[[1,6,2][5,3,0][7,8,4]] - f(n) = 25 + 5 = 30
[[1,6,2][0,5,3][7,8,4]] - f(n) = 25 + 4 = 29
[[1,6,2][5,8,3][7,0,4]] - f(n) = 25 + 6 = 31
```

Node Chosen for Level 26 - [[1,5,8][4,2,6][7,0,3]]

$$[[1,5,8][4,0,6][7,2,3]] - f(n) = 26 + 4 = 30$$

```
[[1,5,8][4,2,6][7,3,0]] - Already visited Node!
[[1,5,8][4,2,6][0,7,3]] - f(n) = 26 + 5 = 31
Node Chosen for Level 26 - [[8,2,5][4,3,6][7,0,1]]
Generated Nodes:
[[8,2,5][4,0,6][7,3,1]] - Already visited Node!
[[8,2,5][4,3,6][7,1,0]] - f(n) = 26 + 4 = 30
[[8,2,5][4,3,6][0,7,1]] - f(n) = 26 + 5 = 31
Node Chosen for Level 26 - [[1,7,4][0,5,6][2,8,3]]
Generated Nodes:
[[0,7,4][1,5,6][2,8,3]] - f(n) = 26 + 5 = 31
[[1,7,4][5,0,6][2,8,3]] - f(n) = 26 + 5 = 31
[[1,7,4][2,5,6][0,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[7,2,1][3,5,0][4,6,8]]
Generated Nodes:
[[7,2,0][3,5,1][4,6,8]] - Already visited Node!
[[7,2,1][3,0,5][4,6,8]] - f(n) = 24 + 7 = 31
[[7,2,1][3,5,8][4,6,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[2,0,8][7,5,6][3,4,1]]
Generated Nodes:
[[2,8,0][7,5,6][3,4,1]] - Already visited Node!
[[0,2,8][7,5,6][3,4,1]] - f(n) = 24 + 5 = 29
[[2,5,8][7,0,6][3,4,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[2,1,4][7,5,6][8,0,3]]
Generated Nodes:
[[2,1,4][7,0,6][8,5,3]] - Already visited Node!
[[2,1,4][7,5,6][8,3,0]] - Already visited Node!
[[2,1,4][7,5,6][0,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[4,8,7][2,5,6][3,0,1]]
Generated Nodes:
[[4,8,7][2,0,6][3,5,1]] - f(n) = 24 + 7 = 31
[[4,8,7][2,5,6][3,1,0]] - Already visited Node!
[[4,8,7][2,5,6][0,3,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,2,4][3,5,0][6,1,8]]
```

```
Generated Nodes:
[[7,2,0][3,5,4][6,1,8]] - Already visited Node!
[[7,2,4][3,0,5][6,1,8]] - f(n) = 24 + 7 = 31
[[7,2,4][3,5,8][6,1,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 26 - [[7,2,1][4,5,0][3,8,6]]
Generated Nodes:
[[7,2,0][4,5,1][3,8,6]] - Already visited Node!
[[7,2,1][4,0,5][3,8,6]] - f(n) = 26 + 5 = 31
[[7,2,1][4,5,6][3,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 25 - [[1,2,3][5,0,7][8,6,4]]
Generated Nodes:
[[1,0,3][5,2,7][8,6,4]] - f(n) = 25 + 6 = 31
[[1,2,3][5,7,0][8,6,4]] - Already visited Node!
[[1,2,3][0,5,7][8,6,4]] - f(n) = 25 + 4 = 29
[[1,2,3][5,6,7][8,0,4]] - f(n) =
                                  25 + 5 = 30
Node Chosen for Level 25 - [[1,2,3][5,7,4][8,6,0]]
Generated Nodes:
[[1,2,3][5,7,0][8,6,4]] - Already visited Node!
[[1,2,3][5,7,4][8,0,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[0,2,4][5,6,3][7,8,1]]
Generated Nodes:
[[2,0,4][5,6,3][7,8,1]] - f(n) = 25 + 6 = 31
[[5,2,4][0,6,3][7,8,1]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,4][6,0,3][7,8,1]]
Generated Nodes:
[[5,0,4][6,2,3][7,8,1]] - f(n) = 25 + 6 = 31
[[5,2,4][6,3,0][7,8,1]] - f(n) =
                                  25 + 5 = 30
[[5,2,4][0,6,3][7,8,1]] - Already visited Node!
[[5,2,4][6,8,3][7,0,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[8,0,7][2,5,6][3,4,1]]
Generated Nodes:
```

[[8,7,0][2,5,6][3,4,1]] - Already visited Node!

```
[[0,8,7][2,5,6][3,4,1]] - f(n) = 24 + 6 = 30
[[8,5,7][2,0,6][3,4,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[1,8,5][4,7,2][3,0,6]]
Generated Nodes:
[[1,8,5][4,0,2][3,7,6]] - f(n) = 24 + 6 = 30
[[1,8,5][4,7,2][3,6,0]] - f(n) = 24 + 6 = 30
[[1,8,5][4,7,2][0,3,6]] - Already visited Node!
Node Chosen for Level 25 - [[1,2,3][5,0,7][8,6,4]]
Generated Nodes:
[[1,0,3][5,2,7][8,6,4]] - f(n) = 25 + 6 = 31
[[1,2,3][5,7,0][8,6,4]] - Already visited Node!
[[1,2,3][0,5,7][8,6,4]] - f(n) = 25 + 4 = 29
[[1,2,3][5,6,7][8,0,4]] - f(n) =
                                  25 + 5 = 30
Node Chosen for Level 25 - [[1,2,3][5,7,4][8,6,0]]
Generated Nodes:
[[1,2,3][5,7,0][8,6,4]] - Already visited Node!
[[1,2,3][5,7,4][8,0,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[8,7,4][3,5,6][1,0,2]]
Generated Nodes:
[[8,7,4][3,0,6][1,5,2]] - f(n) = 24 + 7 = 31
[[8,7,4][3,5,6][1,2,0]] - Already visited Node!
[[8,7,4][3,5,6][0,1,2]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,0,2][4,1,8][7,3,6]]
Generated Nodes:
[[5,2,0][4,1,8][7,3,6]] - f(n) = 24 + 5 = 29
[[0,5,2][4,1,8][7,3,6]] - Already visited Node!
[[5,1,2][4,0,8][7,3,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[4,2,1][7,5,0][8,3,6]]
Generated Nodes:
[[4,2,0][7,5,1][8,3,6]] - Already visited Node!
[[4,2,1][7,0,5][8,3,6]] - f(n) = 24 + 7 = 31
[[4,2,1][7,5,6][8,3,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[3,2,4][8,5,0][1,7,6]]
```

```
Generated Nodes:
[[3,2,0][8,5,4][1,7,6]] - Already visited Node!
[[3,2,4][8,0,5][1,7,6]] - f(n) = 24 + 7 = 31
[[3,2,4][8,5,6][1,7,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,2,5][7,4,0][8,3,6]]
Generated Nodes:
[[1,2,0][7,4,5][8,3,6]] - f(n) = 24 + 6 = 30
[[1,2,5][7,0,4][8,3,6]] - Already visited Node!
[[1,2,5][7,4,6][8,3,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[1,2,5][0,7,4][8,3,6]]
Generated Nodes:
[[0,2,5][1,7,4][8,3,6]] - f(n) = 24 + 7 = 31
[[1,2,5][7,0,4][8,3,6]] - Already visited Node!
[[1,2,5][8,7,4][0,3,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,2,5][7,3,4][8,0,6]]
Generated Nodes:
[[1,2,5][7,0,4][8,3,6]] - Already visited Node!
[[1,2,5][7,3,4][8,6,0]] - f(n) = 24 + 6 = 30
[[1,2,5][7,3,4][0,8,6]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[7,2,4][6,5,0][8,1,3]]
Generated Nodes:
[[7,2,0][6,5,4][8,1,3]] - Already visited Node!
[[7,2,4][6,0,5][8,1,3]] - f(n) = 24 + 7 = 31
[[7,2,4][6,5,3][8,1,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,2,4][5,8,0][3,7,6]]
Generated Nodes:
[[1,2,0][5,8,4][3,7,6]] - Already visited Node!
[[1,2,4][5,0,8][3,7,6]] - f(n) = 24 + 6 = 30
[[1,2,4][5,8,6][3,7,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 25 - [[0,2,4][5,6,3][7,8,1]]
Generated Nodes:
```

[[2,0,4][5,6,3][7,8,1]] - f(n) = 25 + 6 = 31

```
[[5,2,4][0,6,3][7,8,1]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,4][6,0,3][7,8,1]]
Generated Nodes:
[[5,0,4][6,2,3][7,8,1]] - f(n) = 25 + 6 = 31
[[5,2,4][6,3,0][7,8,1]] - f(n) =
                                  25 + 5 = 30
[[5,2,4][0,6,3][7,8,1]] - Already visited Node!
[[5,2,4][6,8,3][7,0,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,2,3][1,0,8][7,6,4]]
Generated Nodes:
[[5,0,3][1,2,8][7,6,4]] - f(n) = 25 + 6 = 31
[[5,2,3][1,8,0][7,6,4]] - Already visited Node!
[[5,2,3][0,1,8][7,6,4]] - f(n) = 25 + 5 = 30
[[5,2,3][1,6,8][7,0,4]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,2,3][1,8,4][7,6,0]]
Generated Nodes:
[[5,2,3][1,8,0][7,6,4]] - Already visited Node!
[[5,2,3][1,8,4][7,0,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[0,2,1][5,6,4][7,8,3]]
Generated Nodes:
[[2,0,1][5,6,4][7,8,3]] - f(n) = 25 + 6 = 31
[[5,2,1][0,6,4][7,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,1][6,0,4][7,8,3]]
Generated Nodes:
[[5,0,1][6,2,4][7,8,3]] - f(n) = 25 + 6 = 31
[[5,2,1][6,4,0][7,8,3]] - f(n) = 25 + 5 = 30
[[5,2,1][0,6,4][7,8,3]] - Already visited Node!
[[5,2,1][6,8,4][7,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,2,3][7,6,4][1,8,0]]
Generated Nodes:
[[5,2,3][7,6,0][1,8,4]] - Already visited Node!
[[5,2,3][7,6,4][1,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,6,5][3,0,2][7,8,4]]
```

```
Generated Nodes:
[[1,0,5][3,6,2][7,8,4]] - f(n) = 25 + 5 = 30
[[1,6,5][3,2,0][7,8,4]] - f(n) =
                                  25 + 5 = 30
[[1,6,5][0,3,2][7,8,4]] - Already visited Node!
[[1,6,5][3,8,2][7,0,4]] - f(n) = 25 + 6 = 31
Node Chosen for Level 26 - [[1,7,4][0,5,6][2,8,3]]
Generated Nodes:
[[0,7,4][1,5,6][2,8,3]] - f(n) = 26 + 5 = 31
[[1,7,4][5,0,6][2,8,3]] - f(n) = 26 + 5 = 31
[[1,7,4][2,5,6][0,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[0,4,1][5,2,6][7,8,3]]
Generated Nodes:
[[4,0,1][5,2,6][7,8,3]] - f(n) = 25 + 5 = 30
[[5,4,1][0,2,6][7,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[5,4,1][2,0,6][7,8,3]]
Generated Nodes:
[[5,0,1][2,4,6][7,8,3]] - f(n) = 25 + 5 = 30
[[5,4,1][2,6,0][7,8,3]] - f(n) = 25 + 6 = 31
[[5,4,1][0,2,6][7,8,3]] - Already visited Node!
[[5,4,1][2,8,6][7,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 26 - [[1,7,2][4,5,6][3,0,8]]
Generated Nodes:
[[1,7,2][4,0,6][3,5,8]] - f(n) = 26 + 5 = 31
[[1,7,2][4,5,6][3,8,0]] - f(n) = 26 + 3 = 29
[[1,7,2][4,5,6][0,3,8]] - Already visited Node!
Node Chosen for Level 25 - [[4,1,5][2,0,6][7,8,3]]
Generated Nodes:
[[4,0,5][2,1,6][7,8,3]] - f(n) = 25 + 5 = 30
[[4,1,5][2,6,0][7,8,3]] - f(n) = 25 + 6 = 31
[[4,1,5][0,2,6][7,8,3]] - Already visited Node!
[[4,1,5][2,8,6][7,0,3]] - f(n) = 25 + 6 = 31
```

Node Chosen for Level 25 - [[0,4,1][5,2,6][7,8,3]]

```
[[4,0,1][5,2,6][7,8,3]] - f(n) = 25 + 5 = 30
[[5,4,1][0,2,6][7,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[5,4,1][2,0,6][7,8,3]]
Generated Nodes:
[[5,0,1][2,4,6][7,8,3]] - f(n) = 25 + 5 = 30
[[5,4,1][2,6,0][7,8,3]] - f(n) = 25 + 6 = 31
[[5,4,1][0,2,6][7,8,3]] - Already visited Node!
[[5,4,1][2,8,6][7,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 26 - [[1,2,4][7,5,0][3,8,6]]
Generated Nodes:
[[1,2,0][7,5,4][3,8,6]] - Already visited Node!
[[1,2,4][7,0,5][3,8,6]] - f(n) = 26 + 5 = 31
[[1,2,4][7,5,6][3,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 25 - [[7,2,3][1,5,8][6,4,0]]
Generated Nodes:
[[7,2,3][1,5,0][6,4,8]] - Already visited Node!
[[7,2,3][1,5,8][6,0,4]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[7,2,3][6,5,1][8,4,0]]
Generated Nodes:
[[7,2,3][6,5,0][8,4,1]] - Already visited Node!
[[7,2,3][6,5,1][8,0,4]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[7,2,3][8,5,4][6,1,0]]
Generated Nodes:
[[7,2,3][8,5,0][6,1,4]] - Already visited Node!
[[7,2,3][8,5,4][6,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 26 - [[1,2,4][7,5,0][3,8,6]]
Generated Nodes:
[[1,2,0][7,5,4][3,8,6]] - Already visited Node!
[[1,2,4][7,0,5][3,8,6]] - f(n) = 26 + 5 = 31
[[1,2,4][7,5,6][3,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 26 - [[5,2,3][0,7,6][1,8,4]]
Generated Nodes:
```

```
[[0,2,3][5,7,6][1,8,4]] - f(n) = 26 + 4 = 30
[[5,2,3][7,0,6][1,8,4]] - Already visited Node!
[[5,2,3][1,7,6][0,8,4]] - f(n) = 26 + 4 = 30
Node Chosen for Level 27 - [[1,2,3][5,6,4][7,8,0]]
Generated Nodes:
[[1,2,3][5,6,0][7,8,4]] - Already visited Node!
[[1,2,3][5,6,4][7,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[1,5,0][4,2,6][7,8,3]]
Generated Nodes:
[[1,0,5][4,2,6][7,8,3]] - Already visited Node!
[[1,5,6][4,2,0][7,8,3]] - f(n) = 27 + 4 = 31
Node Chosen for Level 23 - [[8,2,0][3,7,5][4,1,6]]
Generated Nodes:
[[8,0,2][3,7,5][4,1,6]] - Already visited Node!
[[8,2,5][3,7,0][4,1,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,2][4,3,5][0,1,6]]
Generated Nodes:
[[8,7,2][0,3,5][4,1,6]] - Already visited Node!
[[8,7,2][4,3,5][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 25 - [[4,2,0][5,7,6][1,8,3]]
Generated Nodes:
[[4,0,2][5,7,6][1,8,3]] - Already visited Node!
[[4,2,6][5,7,0][1,8,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[7,2,0][5,1,6][4,8,3]]
Generated Nodes:
[[7,0,2][5,1,6][4,8,3]] - f(n) = 25 + 6 = 31
[[7,2,6][5,1,0][4,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[3,2,0][4,7,6][8,5,1]]
Generated Nodes:
[[3,0,2][4,7,6][8,5,1]] - Already visited Node!
```

```
[[3,2,6][4,7,0][8,5,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[7,2,6][4,1,5][3,8,0]]
Generated Nodes:
[[7,2,6][4,1,0][3,8,5]] - f(n) = 25 + 5 = 30
[[7,2,6][4,1,5][3,0,8]] - Already visited Node!
Node Chosen for Level 24 - [[1,7,3][0,2,5][8,6,4]]
Generated Nodes:
[[0,7,3][1,2,5][8,6,4]] - Already visited Node!
[[1,7,3][2,0,5][8,6,4]] - f(n) = 24 + 6 = 30
[[1,7,3][8,2,5][0,6,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[7,2,0][1,8,4][3,5,6]]
Generated Nodes:
[[7,0,2][1,8,4][3,5,6]] - Already visited Node!
[[7,2,4][1,8,0][3,5,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[2,4,6][0,5,7][3,8,1]]
Generated Nodes:
[[0,4,6][2,5,7][3,8,1]] - f(n) = 24 + 6 = 30
[[2,4,6][5,0,7][3,8,1]] - Already visited Node!
[[2,4,6][3,5,7][0,8,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[2,4,6][0,5,8][7,3,1]]
Generated Nodes:
[[0,4,6][2,5,8][7,3,1]] - f(n) = 24 + 6 = 30
[[2,4,6][5,0,8][7,3,1]] - Already visited Node!
[[2,4,6][7,5,8][0,3,1]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[7,0,2][4,5,3][1,6,8]]
Generated Nodes:
[[7,2,0][4,5,3][1,6,8]] - f(n) = 24 + 5 = 29
[[0,7,2][4,5,3][1,6,8]] - f(n) = 24 + 6 = 30
[[7,5,2][4,0,3][1,6,8]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,2][4,5,8][1,3,6]]
Generated Nodes:
```

```
[[7,2,0][4,5,8][1,3,6]] - f(n) = 24 + 5 = 29
[[0,7,2][4,5,8][1,3,6]] - f(n) = 24 + 6 = 30
[[7,5,2][4,0,8][1,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[3,2,0][1,7,5][8,6,4]]
Generated Nodes:
[[3,0,2][1,7,5][8,6,4]] - Already visited Node!
[[3,2,5][1,7,0][8,6,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,7,2][1,6,5][0,8,4]]
Generated Nodes:
[[3,7,2][0,6,5][1,8,4]] - f(n) = 23 + 7 = 30
[[3,7,2][1,6,5][8,0,4]] - Already visited Node!
Node Chosen for Level 24 - [[2,1,4][7,5,6][8,0,3]]
Generated Nodes:
[[2,1,4][7,0,6][8,5,3]] - Already visited Node!
[[2,1,4][7,5,6][8,3,0]] - Already visited Node!
[[2,1,4][7,5,6][0,8,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,1,7][4,0,2][8,3,6]]
Generated Nodes:
[[5,0,7][4,1,2][8,3,6]] - f(n) = 23 + 7 = 30
[[5,1,7][4,2,0][8,3,6]] - f(n) = 23 + 7 = 30
[[5,1,7][0,4,2][8,3,6]] - Already visited Node!
[[5,1,7][4,3,2][8,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[5,0,3][7,6,2][4,8,1]]
Generated Nodes:
[[5,3,0][7,6,2][4,8,1]] - Already visited Node!
[[0,5,3][7,6,2][4,8,1]] - f(n) = 24 + 6 = 30
[[5,6,3][7,0,2][4,8,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,3,2][0,8,6][7,4,1]]
Generated Nodes:
[[0,3,2][5,8,6][7,4,1]] - f(n) = 24 + 6 = 30
[[5,3,2][8,0,6][7,4,1]] - f(n) = 24 + 6 = 30
[[5,3,2][7,8,6][0,4,1]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,4][3,5,6][8,2,1]]
```

```
Generated Nodes:
```

```
[[7,4,0][3,5,6][8,2,1]] - f(n) = 24 + 6 = 30

[[0,7,4][3,5,6][8,2,1]] - f(n) = 24 + 6 = 30

[[7,5,4][3,0,6][8,2,1]] - Already visited Node!
```

Node Chosen for Level 23 - [[8,2,0][3,7,5][6,4,1]]

Generated Nodes:

[[8,0,2][3,7,5][6,4,1]] - Already visited Node! [[8,2,5][3,7,0][6,4,1]] - f(n) = 23 + 7 = 30

Node Chosen for Level 23 - [[3,2,0][1,7,8][6,5,4]]

Generated Nodes:

```
[[3,0,2][1,7,8][6,5,4]] - Already visited Node! [[3,2,8][1,7,0][6,5,4]] - f(n) = 23 + 7 = 30
```

Node Chosen for Level 24 - [[5,0,3][7,6,2][4,8,1]]

Generated Nodes:

```
[[5,3,0][7,6,2][4,8,1]] - Already visited Node! [[0,5,3][7,6,2][4,8,1]] - f(n) = 24 + 6 = 30 [[5,6,3][7,0,2][4,8,1]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 24 - [[5,3,2][0,8,6][7,4,1]]

Generated Nodes:

[[0,3,2][5,8,6][7,4,1]] - f(n) = 24 + 6 = 30

$$[[5,3,2][8,0,6][7,4,1]] - f(n) = 24 + 6 = 30$$

[[5,3,2][7,8,6][0,4,1]] - Already visited Node!

Node Chosen for Level 24 - [[2,4,3][5,7,0][1,8,6]]

Generated Nodes:

$$[[2,4,0][5,7,3][1,8,6]]$$
 - Already visited Node! $[[2,4,3][5,0,7][1,8,6]]$ - $f(n)$ = 24 + 6 = 30 $[[2,4,3][5,7,6][1,8,0]]$ - $f(n)$ = 24 + 5 = 29

Node Chosen for Level 24 - [[2,7,4][0,5,3][1,8,6]]

Generated Nodes:

[[0,7,4][2,5,3][1,8,6]] - f(n) = 24 + 6 = 30[[2,7,4][5,0,3][1,8,6]] - Already visited Node!

[[2,7,4][1,5,3][0,8,6]] - f(n) = 24 + 6 = 30

```
Node Chosen for Level 24 - [[8,0,6][4,5,7][3,2,1]]
Generated Nodes:
[[8,6,0][4,5,7][3,2,1]] - f(n) = 24 + 6 = 30
[[0,8,6][4,5,7][3,2,1]] - f(n) = 24 + 6 = 30
[[8,5,6][4,0,7][3,2,1]] - Already visited Node!
Node Chosen for Level 24 - [[2,7,4][0,5,6][8,1,3]]
Generated Nodes:
[[0,7,4][2,5,6][8,1,3]] - f(n) = 24 + 6 = 30
[[2,7,4][5,0,6][8,1,3]] - Already visited Node!
[[2,7,4][8,5,6][0,1,3]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,4,2][0,8,6][7,1,3]]
Generated Nodes:
[[0,4,2][5,8,6][7,1,3]] - f(n) = 24 + 6 = 30
[[5,4,2][8,0,6][7,1,3]] - f(n) = 24 + 6 = 30
[[5,4,2][7,8,6][0,1,3]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,0][3,7,4][1,5,6]]
Generated Nodes:
[[8,0,2][3,7,4][1,5,6]] - Already visited Node!
[[8,2,4][3,7,0][1,5,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,2][3,4,6][1,5,0]]
Generated Nodes:
[[8,7,2][3,4,0][1,5,6]] - Already visited Node!
[[8,7,2][3,4,6][1,0,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[6,2,0][5,7,1][8,3,4]]
Generated Nodes:
[[6,0,2][5,7,1][8,3,4]] - Already visited Node!
[[6,2,1][5,7,0][8,3,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[6,7,2][5,3,1][0,8,4]]
Generated Nodes:
[[6,7,2][0,3,1][5,8,4]] - f(n) = 23 + 7 = 30
[[6,7,2][5,3,1][8,0,4]] - Already visited Node!
```

```
Node Chosen for Level 24 - [[8,5,2][3,4,6][7,0,1]]
Generated Nodes:
[[8,5,2][3,0,6][7,4,1]] - f(n) = 24 + 6 = 30
[[8,5,2][3,4,6][7,1,0]] - f(n) = 24 + 6 = 30
[[8,5,2][3,4,6][0,7,1]] - Already visited Node!
Node Chosen for Level 24 - [[8,0,2][7,5,6][4,3,1]]
Generated Nodes:
[[8,2,0][7,5,6][4,3,1]] - f(n) = 24 + 5 = 29
[[0,8,2][7,5,6][4,3,1]] - f(n) = 24 + 6 = 30
[[8,5,2][7,0,6][4,3,1]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,7][1,5,0][4,3,6]]
Generated Nodes:
[[8,2,0][1,5,7][4,3,6]] - f(n) = 24 + 6 = 30
[[8,2,7][1,0,5][4,3,6]] - Already visited Node!
[[8,2,7][1,5,6][4,3,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 25 - [[1,2,0][8,7,6][4,5,3]]
Generated Nodes:
[[1,0,2][8,7,6][4,5,3]] - Already visited Node!
[[1,2,6][8,7,0][4,5,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,7,2][4,8,6][0,5,3]]
Generated Nodes:
[[1,7,2][0,8,6][4,5,3]] - Already visited Node!
[[1,7,2][4,8,6][5,0,3]] - Already visited Node!
Node Chosen for Level 26 - [[1,4,3][5,2,0][7,8,6]]
Generated Nodes:
[[1,4,0][5,2,3][7,8,6]] - Already visited Node!
[[1,4,3][5,0,2][7,8,6]] - Already visited Node!
[[1,4,3][5,2,6][7,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 25 - [[7,2,3][1,4,6][8,5,0]]
Generated Nodes:
[[7,2,3][1,4,0][8,5,6]] - Already visited Node!
```

```
[[7,2,3][1,4,6][8,0,5]] - f(n) = 25 + 5 = 30
Node Chosen for Level 26 - [[4,0,2][1,5,6][7,8,3]]
Generated Nodes:
[[4,2,0][1,5,6][7,8,3]] - f(n) = 26 + 3 = 29
[[0,4,2][1,5,6][7,8,3]] - Already visited Node!
[[4,5,2][1,0,6][7,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,4,3][0,8,2][7,1,6]]
Generated Nodes:
[[0,4,3][5,8,2][7,1,6]] - f(n) = 24 + 6 = 30
[[5,4,3][8,0,2][7,1,6]] - f(n) = 24 + 6 = 30
[[5,4,3][7,8,2][0,1,6]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,0][1,4,6][5,8,3]]
Generated Nodes:
[[7,0,2][1,4,6][5,8,3]] - Already visited Node!
[[7,2,6][1,4,0][5,8,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[7,2,1][4,6,5][0,8,3]]
Generated Nodes:
[[7,2,1][0,6,5][4,8,3]] - f(n) = 25 + 6 = 31
[[7,2,1][4,6,5][8,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[4,2,6][0,5,7][8,3,1]]
Generated Nodes:
[[0,2,6][4,5,7][8,3,1]] - f(n) = 24 + 5 = 29
[[4,2,6][5,0,7][8,3,1]] - Already visited Node!
[[4,2,6][8,5,7][0,3,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,1,2][8,5,6][3,0,4]]
Generated Nodes:
[[7,1,2][8,0,6][3,5,4]] - Already visited Node!
[[7,1,2][8,5,6][3,4,0]] - f(n) = 24 + 6 = 30
[[7,1,2][8,5,6][0,3,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[8,2,6][3,5,7][4,0,1]]
Generated Nodes:
```

```
[[8,2,6][3,0,7][4,5,1]] - Already visited Node!
[[8,2,6][3,5,7][4,1,0]] - f(n) = 24 + 6 = 30
[[8,2,6][3,5,7][0,4,1]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,2][1,5,3][4,8,6]]
Generated Nodes:
[[7,2,0][1,5,3][4,8,6]] - f(n) = 24 + 5 = 29
[[0,7,2][1,5,3][4,8,6]] - f(n) = 24 + 6 = 30
[[7,5,2][1,0,3][4,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[7,0,2][1,5,3][4,8,6]]
Generated Nodes:
[[7,2,0][1,5,3][4,8,6]] - f(n) = 24 + 5 = 29
[[0,7,2][1,5,3][4,8,6]] - f(n) = 24 + 6 = 30
[[7,5,2][1,0,3][4,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[4,2,6][0,5,7][8,3,1]]
Generated Nodes:
[[0,2,6][4,5,7][8,3,1]] - f(n) = 24 + 5 = 29
[[4,2,6][5,0,7][8,3,1]] - Already visited Node!
[[4,2,6][8,5,7][0,3,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 26 - [[1,3,2][0,5,6][7,4,8]]
Generated Nodes:
[[0,3,2][1,5,6][7,4,8]] - f(n) = 26 + 5 = 31
[[1,3,2][5,0,6][7,4,8]] - Already visited Node!
[[1,3,2][7,5,6][0,4,8]] - f(n) = 26 + 5 = 31
Node Chosen for Level 26 - [[4,2,6][0,5,3][7,8,1]]
Generated Nodes:
[[0,2,6][4,5,3][7,8,1]] - f(n) = 26 + 3 = 29
[[4,2,6][5,0,3][7,8,1]] - Already visited Node!
[[4,2,6][7,5,3][0,8,1]] - f(n) = 26 + 5 = 31
Node Chosen for Level 27 - [[4,2,0][1,5,6][7,8,3]]
Generated Nodes:
[[4,0,2][1,5,6][7,8,3]] - Already visited Node!
[[4,2,6][1,5,0][7,8,3]] - f(n) = 27 + 4 = 31
Node Chosen for Level 23 - [[4,7,2][5,6,1][0,8,3]]
```

```
Generated Nodes:
[[4,7,2][0,6,1][5,8,3]] - f(n) = 23 + 7 = 30
[[4,7,2][5,6,1][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[7,1,4][8,2,6][3,5,0]]
Generated Nodes:
[[7,1,4][8,2,0][3,5,6]] - Already visited Node!
[[7,1,4][8,2,6][3,0,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][7,4,3][8,1,6]]
Generated Nodes:
[[5,0,2][7,4,3][8,1,6]] - Already visited Node!
[[5,2,3][7,4,0][8,1,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[7,5,2][4,3,1][0,6,8]]
Generated Nodes:
[[7,5,2][0,3,1][4,6,8]] - Already visited Node!
[[7,5,2][4,3,1][6,0,8]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,4,5][7,1,6][8,3,0]]
Generated Nodes:
[[2,4,5][7,1,0][8,3,6]] - Already visited Node!
[[2,4,5][7,1,6][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,1,4][7,3,5][0,8,6]]
Generated Nodes:
[[2,1,4][0,3,5][7,8,6]] - f(n) = 23 + 6 = 29
[[2,1,4][7,3,5][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,7,5][6,3,2][0,8,1]]
Generated Nodes:
[[4,7,5][0,3,2][6,8,1]] - f(n) = 23 + 7 = 30
[[4,7,5][6,3,2][8,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,0][7,4,1][8,6,3]]
Generated Nodes:
```

```
[[5,0,2][7,4,1][8,6,3]] - Already visited Node!
[[5,2,1][7,4,0][8,6,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][7,4,3][8,1,6]]
Generated Nodes:
[[5,0,2][7,4,3][8,1,6]] - Already visited Node!
[[5,2,3][7,4,0][8,1,6]] - f(n) = 23 + 6 = 29
Node Chosen for Level 23 - [[5,4,2][7,1,3][0,8,6]]
Generated Nodes:
[[5,4,2][0,1,3][7,8,6]] - f(n) = 23 + 6 = 29
[[5,4,2][7,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[5,4,8][3,2,6][1,7,0]]
Generated Nodes:
[[5,4,8][3,2,0][1,7,6]] - Already visited Node!
[[5,4,8][3,2,6][1,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,1,2][7,6,4][3,8,0]]
Generated Nodes:
[[5,1,2][7,6,0][3,8,4]] - f(n) = 23 + 7 = 30
[[5,1,2][7,6,4][3,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[3,7,5][1,2,6][8,4,0]]
Generated Nodes:
[[3,7,5][1,2,0][8,4,6]] - Already visited Node!
[[3,7,5][1,2,6][8,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][1,3,4][8,7,6]]
Generated Nodes:
[[5,0,2][1,3,4][8,7,6]] - Already visited Node!
[[5,2,4][1,3,0][8,7,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,3,2][1,4,6][8,7,0]]
Generated Nodes:
[[5,3,2][1,4,0][8,7,6]] - Already visited Node!
[[5,3,2][1,4,6][8,0,7]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[5,2,0][8,4,7][3,1,6]]
Generated Nodes:
[[5,0,2][8,4,7][3,1,6]] - Already visited Node!
[[5,2,7][8,4,0][3,1,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,4,5][2,6,1][0,8,3]]
Generated Nodes:
[[7,4,5][0,6,1][2,8,3]] - f(n) = 23 + 7 = 30
[[7,4,5][2,6,1][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[2,4,1][5,7,6][8,3,0]]
Generated Nodes:
[[2,4,1][5,7,0][8,3,6]] - Already visited Node!
[[2,4,1][5,7,6][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,7,4][5,1,6][8,3,0]]
Generated Nodes:
[[2,7,4][5,1,0][8,3,6]] - Already visited Node!
[[2,7,4][5,1,6][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[2,7,4][5,3,1][0,8,6]]
Generated Nodes:
[[2,7,4][0,3,1][5,8,6]] - f(n) = 23 + 7 = 30
[[2,7,4][5,3,1][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[8,4,7][5,2,6][3,1,0]]
Generated Nodes:
[[8,4,7][5,2,0][3,1,6]] - Already visited Node!
[[8,4,7][5,2,6][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 25 - [[5,2,0][4,8,3][7,1,6]]
Generated Nodes:
[[5,0,2][4,8,3][7,1,6]] - Already visited Node!
[[5,2,3][4,8,0][7,1,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[4,7,2][3,5,6][1,8,0]]
Generated Nodes:
```

```
[[4,7,2][3,5,0][1,8,6]] - f(n) = 25 + 6 = 31
[[4,7,2][3,5,6][1,0,8]] - Already visited Node!
Node Chosen for Level 25 - [[2,4,1][5,3,6][7,8,0]]
Generated Nodes:
[[2,4,1][5,3,0][7,8,6]] - Already visited Node!
[[2,4,1][5,3,6][7,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[2,3,4][5,1,6][7,8,0]]
Generated Nodes:
[[2,3,4][5,1,0][7,8,6]] - Already visited Node!
[[2,3,4][5,1,6][7,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,4,1][3,2,6][7,8,0]]
Generated Nodes:
[[5,4,1][3,2,0][7,8,6]] - Already visited Node!
[[5,4,1][3,2,6][7,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,2,6][4,7,3][0,8,1]]
Generated Nodes:
[[5,2,6][0,7,3][4,8,1]] - Already visited Node!
[[5,2,6][4,7,3][8,0,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,2,6][4,7,3][0,8,1]]
Generated Nodes:
[[5,2,6][0,7,3][4,8,1]] - Already visited Node!
[[5,2,6][4,7,3][8,0,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,2,0][3,1,6][7,4,8]]
Generated Nodes:
[[5,0,2][3,1,6][7,4,8]] - Already visited Node!
[[5,2,6][3,1,0][7,4,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,7,5][3,2,6][4,8,0]]
Generated Nodes:
[[1,7,5][3,2,0][4,8,6]] - Already visited Node!
[[1,7,5][3,2,6][4,0,8]] - f(n) = 25 + 6 = 31
```

```
Node Chosen for Level 23 - [[7,2,0][3,1,4][8,5,6]]
Generated Nodes:
[[7,0,2][3,1,4][8,5,6]] - Already visited Node!
[[7,2,4][3,1,0][8,5,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[7,0,2][6,5,4][3,8,1]]
Generated Nodes:
[[7,2,0][6,5,4][3,8,1]] - f(n) = 24 + 5 = 29
[[0,7,2][6,5,4][3,8,1]] - f(n) = 24 + 6 = 30
[[7,5,2][6,0,4][3,8,1]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,6][4,1,3][0,8,5]]
Generated Nodes:
[[7,2,6][0,1,3][4,8,5]] - f(n) = 25 + 6 = 31
[[7,2,6][4,1,3][8,0,5]] - Already visited Node!
Node Chosen for Level 23 - [[7,2,0][8,3,1][6,5,4]]
Generated Nodes:
[[7,0,2][8,3,1][6,5,4]] - Already visited Node!
[[7,2,1][8,3,0][6,5,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[7,0,4][2,5,3][1,8,6]]
Generated Nodes:
[[7,4,0][2,5,3][1,8,6]] - f(n) = 24 + 6 = 30
[[0,7,4][2,5,3][1,8,6]] - f(n) = 24 + 6 = 30
[[7,5,4][2,0,3][1,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[8,6,7][4,5,0][3,2,1]]
Generated Nodes:
[[8,6,0][4,5,7][3,2,1]] - f(n) = 24 + 6 = 30
[[8,6,7][4,0,5][3,2,1]] - Already visited Node!
[[8,6,7][4,5,1][3,2,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,0,4][2,5,6][8,1,3]]
Generated Nodes:
[[7,4,0][2,5,6][8,1,3]] - f(n) = 24 + 6 = 30
[[0,7,4][2,5,6][8,1,3]] - f(n) = 24 + 6 = 30
```

```
[[7,5,4][2,0,6][8,1,3]] - Already visited Node!
Node Chosen for Level 24 - [[2,4,8][0,5,1][7,3,6]]
Generated Nodes:
[[0,4,8][2,5,1][7,3,6]] - f(n) = 24 + 6 = 30
[[2,4,8][5,0,1][7,3,6]] - Already visited Node!
[[2,4,8][7,5,1][0,3,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[8,2,6][0,5,1][3,7,4]]
Generated Nodes:
[[0,2,6][8,5,1][3,7,4]] - f(n) = 24 + 6 = 30
[[8,2,6][5,0,1][3,7,4]] - Already visited Node!
[[8,2,6][3,5,1][0,7,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,0,2][4,5,8][3,6,1]]
Generated Nodes:
[[7,2,0][4,5,8][3,6,1]] - f(n) = 24 + 5 = 29
[[0,7,2][4,5,8][3,6,1]] - f(n) = 24 + 6 = 30
[[7,5,2][4,0,8][3,6,1]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,3][1,0,6][8,4,5]]
Generated Nodes:
[[7,0,3][1,2,6][8,4,5]] - f(n) = 25 + 6 = 31
[[7,2,3][1,6,0][8,4,5]] - Already visited Node!
[[7,2,3][0,1,6][8,4,5]] - f(n) = 25 + 5 = 30
[[7,2,3][1,4,6][8,0,5]] - f(n) = 25 + 5 = 30
Node Chosen for Level 23 - [[7,2,0][3,8,4][5,1,6]]
Generated Nodes:
[[7,0,2][3,8,4][5,1,6]] - Already visited Node!
[[7,2,4][3,8,0][5,1,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,2,0][8,7,4][5,1,6]]
Generated Nodes:
[[3,0,2][8,7,4][5,1,6]] - Already visited Node!
[[3,2,4][8,7,0][5,1,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,7,2][8,4,6][5,1,0]]
Generated Nodes:
```

```
[[3,7,2][8,4,0][5,1,6]] - Already visited Node!
[[3,7,2][8,4,6][5,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,6,5][3,4,2][1,8,0]]
Generated Nodes:
[[7,6,5][3,4,0][1,8,2]] - f(n) = 23 + 7 = 30
[[7,6,5][3,4,2][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,8,5][3,2,6][4,1,0]]
Generated Nodes:
[[7,8,5][3,2,0][4,1,6]] - Already visited Node!
[[7,8,5][3,2,6][4,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,8,5][4,3,2][0,1,6]]
Generated Nodes:
[[7,8,5][0,3,2][4,1,6]] - Already visited Node!
[[7,8,5][4,3,2][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][7,3,8][4,1,6]]
Generated Nodes:
[[5,0,2][7,3,8][4,1,6]] - Already visited Node!
[[5,2,8][7,3,0][4,1,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,6,4][7,3,2][0,8,1]]
Generated Nodes:
[[5,6,4][0,3,2][7,8,1]] - f(n) = 23 + 6 = 29
[[5,6,4][7,3,2][8,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,0][7,4,1][8,6,3]]
Generated Nodes:
[[5,0,2][7,4,1][8,6,3]] - Already visited Node!
[[5,2,1][7,4,0][8,6,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,2,8][5,4,7][3,1,6]]
Generated Nodes:
[[2,0,8][5,4,7][3,1,6]] - Already visited Node!
[[5,2,8][0,4,7][3,1,6]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[0,2,7][5,8,4][3,1,6]]
Generated Nodes:
[[2,0,7][5,8,4][3,1,6]] - Already visited Node!
[[5,2,7][0,8,4][3,1,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[3,8,2][7,5,6][4,0,1]]
Generated Nodes:
[[3,8,2][7,0,6][4,5,1]] - Already visited Node!
[[3,8,2][7,5,6][4,1,0]] - f(n) = 24 + 6 = 30
[[3,8,2][7,5,6][0,4,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,3,2][8,5,6][4,0,1]]
Generated Nodes:
[[7,3,2][8,0,6][4,5,1]] - Already visited Node!
[[7,3,2][8,5,6][4,1,0]] - f(n) = 24 + 6 = 30
[[7,3,2][8,5,6][0,4,1]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[4,8,5][3,2,6][1,7,0]]
Generated Nodes:
[[4,8,5][3,2,0][1,7,6]] - Already visited Node!
[[4,8,5][3,2,6][1,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,8,5][4,3,2][1,7,6]]
Generated Nodes:
[[8,0,5][4,3,2][1,7,6]] - f(n) = 23 + 7 = 30
[[4,8,5][0,3,2][1,7,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,1,5][8,2,6][4,3,0]]
Generated Nodes:
[[7,1,5][8,2,0][4,3,6]] - Already visited Node!
[[7,1,5][8,2,6][4,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,1,5][4,8,2][0,3,6]]
Generated Nodes:
[[7,1,5][0,8,2][4,3,6]] - Already visited Node!
[[7,1,5][4,8,2][3,0,6]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[8,5,2][1,7,6][4,3,0]]
Generated Nodes:
[[8,5,2][1,7,0][4,3,6]] - Already visited Node!
[[8,5,2][1,7,6][4,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,4][2,1,6][8,3,0]]
Generated Nodes:
[[7,5,4][2,1,0][8,3,6]] - Already visited Node!
[[7,5,4][2,1,6][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,4][2,3,1][0,8,6]]
Generated Nodes:
[[7,5,4][0,3,1][2,8,6]] - f(n) = 23 + 7 = 30
[[7,5,4][2,3,1][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,6,5][1,4,2][0,8,3]]
Generated Nodes:
[[7,6,5][0,4,2][1,8,3]] - f(n) = 23 + 7 = 30
[[7,6,5][1,4,2][8,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[1,4,7][8,5,2][3,0,6]]
Generated Nodes:
[[1,4,7][8,0,2][3,5,6]] - Already visited Node!
[[1,4,7][8,5,2][3,6,0]] - f(n) = 24 + 6 = 30
[[1,4,7][8,5,2][0,3,6]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,4][1,7,6][3,8,0]]
Generated Nodes:
[[5,2,4][1,7,0][3,8,6]] - f(n) = 25 + 6 = 31
[[5,2,4][1,7,6][3,0,8]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,0][4,8,1][7,6,3]]
Generated Nodes:
[[5,0,2][4,8,1][7,6,3]] - Already visited Node!
[[5,2,1][4,8,0][7,6,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[7,2,6][4,1,3][0,8,5]]
```

```
Generated Nodes:
[[7,2,6][0,1,3][4,8,5]] - f(n) = 25 + 6 = 31
[[7,2,6][4,1,3][8,0,5]] - Already visited Node!
Node Chosen for Level 24 - [[1,3,7][0,5,2][8,6,4]]
Generated Nodes:
[[0,3,7][1,5,2][8,6,4]] - Already visited Node!
[[1,3,7][5,0,2][8,6,4]] - Already visited Node!
[[1,3,7][8,5,2][0,6,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 23 - [[7,2,0][8,6,1][5,3,4]]
Generated Nodes:
[[7,0,2][8,6,1][5,3,4]] - Already visited Node!
[[7,2,1][8,6,0][5,3,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,0][6,7,1][5,3,4]]
Generated Nodes:
[[8,0,2][6,7,1][5,3,4]] - Already visited Node!
[[8,2,1][6,7,0][5,3,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,4][3,8,6][1,2,0]]
Generated Nodes:
[[7,5,4][3,8,0][1,2,6]] - Already visited Node!
[[7,5,4][3,8,6][1,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[1,3,7][0,5,2][8,6,4]]
Generated Nodes:
[[0,3,7][1,5,2][8,6,4]] - Already visited Node!
[[1,3,7][5,0,2][8,6,4]] - Already visited Node!
[[1,3,7][8,5,2][0,6,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,4,2][0,1,6][7,3,8]]
Generated Nodes:
[[0,4,2][5,1,6][7,3,8]] - f(n) = 24 + 6 = 30
[[5,4,2][1,0,6][7,3,8]] - f(n) = 24 + 6 = 30
[[5,4,2][7,1,6][0,3,8]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,7][6,0,5][3,4,1]]
```

```
Generated Nodes:
[[8,0,7][6,2,5][3,4,1]] - Already visited Node!
[[8,2,7][6,5,0][3,4,1]] - f(n) = 23 + 6 = 29
[[8,2,7][0,6,5][3,4,1]] - f(n) = 23 + 7 = 30
[[8,2,7][6,4,5][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,5][4,0,2][6,3,1]]
Generated Nodes:
[[8,0,5][4,7,2][6,3,1]] - f(n) = 23 + 7 = 30
[[8,7,5][4,2,0][6,3,1]] - f(n) = 23 + 7 = 30
[[8,7,5][0,4,2][6,3,1]] - Already visited Node!
[[8,7,5][4,3,2][6,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,5][4,3,2][0,6,1]]
Generated Nodes:
[[8,7,5][0,3,2][4,6,1]] - Already visited Node!
[[8,7,5][4,3,2][6,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,5][3,0,6][4,1,2]]
Generated Nodes:
[[8,0,5][3,7,6][4,1,2]] - f(n) = 23 + 7 = 30
[[8,7,5][3,6,0][4,1,2]] - Already visited Node!
[[8,7,5][0,3,6][4,1,2]] - f(n) = 23 + 7 = 30
[[8,7,5][3,1,6][4,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,8,5][7,2,6][1,4,0]]
Generated Nodes:
[[3,8,5][7,2,0][1,4,6]] - Already visited Node!
[[3,8,5][7,2,6][1,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,2][8,3,6][1,4,0]]
Generated Nodes:
[[7,5,2][8,3,0][1,4,6]] - Already visited Node!
[[7,5,2][8,3,6][1,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,3,5][8,2,6][1,4,0]]
Generated Nodes:
[[7,3,5][8,2,0][1,4,6]] - Already visited Node!
[[7,3,5][8,2,6][1,0,4]] - f(n) = 23 + 7 = 30
```

```
Node Chosen for Level 23 - [[3,8,7][4,0,5][1,6,2]]
Generated Nodes:
[[3,0,7][4,8,5][1,6,2]] - f(n) = 23 + 7 = 30
[[3,8,7][4,5,0][1,6,2]] - f(n) =
                                  23 + 6 = 29
[[3,8,7][0,4,5][1,6,2]] - Already visited Node!
[[3,8,7][4,6,5][1,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,4,5][2,7,6][3,1,0]]
Generated Nodes:
[[8,4,5][2,7,0][3,1,6]] - Already visited Node!
[[8,4,5][2,7,6][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,8,5][3,2,6][1,7,0]]
Generated Nodes:
[[4,8,5][3,2,0][1,7,6]] - Already visited Node!
[[4,8,5][3,2,6][1,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[0,8,5][4,3,2][1,7,6]]
Generated Nodes:
[[8,0,5][4,3,2][1,7,6]] - f(n) = 23 + 7 = 30
[[4,8,5][0,3,2][1,7,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,1,4][3,0,5][6,8,2]]
Generated Nodes:
[[7,0,4][3,1,5][6,8,2]] - f(n) = 23 + 7 = 30
[[7,1,4][3,5,0][6,8,2]] - f(n) = 23 + 6 = 29
[[7,1,4][0,3,5][6,8,2]] - f(n) = 23 + 7 = 30
[[7,1,4][3,8,5][6,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,1,4][8,0,6][3,2,5]]
Generated Nodes:
[[7,0,4][8,1,6][3,2,5]] - f(n) = 23 + 7 = 30
[[7,1,4][8,6,0][3,2,5]] - Already visited Node!
[[7,1,4][0,8,6][3,2,5]] - f(n) = 23 + 7 = 30
[[7,1,4][8,2,6][3,0,5]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,4,5][6,3,1][0,8,2]]
```

```
[[7,4,5][0,3,1][6,8,2]] - Already visited Node!
[[7,4,5][6,3,1][8,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[0,5,2][4,7,1][8,3,6]]
Generated Nodes:
[[5,0,2][4,7,1][8,3,6]] - f(n) = 23 + 7 = 30
[[4,5,2][0,7,1][8,3,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,5,2][7,3,1][0,8,6]]
Generated Nodes:
[[4,5,2][0,3,1][7,8,6]] - f(n) = 23 + 6 = 29
[[4,5,2][7,3,1][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[4,2,1][7,0,5][8,3,6]]
Generated Nodes:
[[4,0,1][7,2,5][8,3,6]] - Already visited Node!
[[4,2,1][7,5,0][8,3,6]] - Already visited Node!
[[4,2,1][0,7,5][8,3,6]] - f(n) = 23 + 7 = 30
[[4,2,1][7,3,5][8,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,4,5][1,6,3][0,8,2]]
Generated Nodes:
[[7,4,5][0,6,3][1,8,2]] - f(n) = 23 + 7 = 30
[[7,4,5][1,6,3][8,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,8][3,2,6][1,4,0]]
Generated Nodes:
[[7,5,8][3,2,0][1,4,6]] - Already visited Node!
[[7,5,8][3,2,6][1,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,8,2][5,7,6][3,1,0]]
Generated Nodes:
[[4,8,2][5,7,0][3,1,6]] - Already visited Node!
[[4,8,2][5,7,6][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[4,7,8][5,2,6][3,1,0]]
Generated Nodes:
```

```
[[4,7,8][5,2,0][3,1,6]] - Already visited Node!
[[4,7,8][5,2,6][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,8][3,2,6][1,7,0]]
Generated Nodes:
[[5,4,8][3,2,0][1,7,6]] - Already visited Node!
[[5,4,8][3,2,6][1,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,8,7][4,0,2][3,1,6]]
Generated Nodes:
[[5,0,7][4,8,2][3,1,6]] - f(n) = 23 + 7 = 30
[[5,8,7][4,2,0][3,1,6]] - f(n) =
                                  23 + 7 = 30
[[5,8,7][0,4,2][3,1,6]] - Already visited Node!
[[5,8,7][4,1,2][3,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,4,7][5,2,6][3,1,0]]
Generated Nodes:
[[8,4,7][5,2,0][3,1,6]] - Already visited Node!
[[8,4,7][5,2,6][3,0,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,2,0][8,1,4][5,3,6]]
Generated Nodes:
[[7,0,2][8,1,4][5,3,6]] - Already visited Node!
[[7,2,4][8,1,0][5,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,0][1,7,4][5,3,6]]
Generated Nodes:
[[8,0,2][1,7,4][5,3,6]] - Already visited Node!
[[8,2,4][1,7,0][5,3,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,7,2][1,4,6][5,3,0]]
Generated Nodes:
[[8,7,2][1,4,0][5,3,6]] - Already visited Node!
[[8,7,2][1,4,6][5,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,5,2][8,4,6][1,7,0]]
Generated Nodes:
[[3,5,2][8,4,0][1,7,6]] - Already visited Node!
```

```
[[3,5,2][8,4,6][1,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,5,8][4,0,2][1,7,6]]
Generated Nodes:
[[3,0,8][4,5,2][1,7,6]] - f(n) = 23 + 6 = 29
[[3,5,8][4,2,0][1,7,6]] - f(n) = 23 + 7 = 30
[[3,5,8][0,4,2][1,7,6]] - Already visited Node!
[[3,5,8][4,7,2][1,0,6]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,4,8][3,2,6][1,7,0]]
Generated Nodes:
[[5,4,8][3,2,0][1,7,6]] - Already visited Node!
[[5,4,8][3,2,6][1,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,3,2][5,4,6][1,7,0]]
Generated Nodes:
[[8,3,2][5,4,0][1,7,6]] - Already visited Node!
[[8,3,2][5,4,6][1,0,7]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[8,2,0][5,3,7][1,6,4]]
Generated Nodes:
[[8,0,2][5,3,7][1,6,4]] - Already visited Node!
[[8,2,7][5,3,0][1,6,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,1,8][7,0,6][3,4,2]]
Generated Nodes:
[[5,0,8][7,1,6][3,4,2]] - f(n) = 23 + 7 = 30
[[5,1,8][7,6,0][3,4,2]] - Already visited Node! [[5,1,8][0,7,6][3,4,2]] - f(n) = 23 + 7 = 30
[[5,1,8][7,4,6][3,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][3,8,1][6,7,4]]
Generated Nodes:
[[5,0,2][3,8,1][6,7,4]] - Already visited Node!
[[5,2,1][3,8,0][6,7,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,2,7][8,0,5][1,6,4]]
Generated Nodes:
```

```
[[3,0,7][8,2,5][1,6,4]] - Already visited Node!
[[3,2,7][8,5,0][1,6,4]] - f(n) = 23 + 6 = 29
[[3,2,7][0,8,5][1,6,4]] - f(n) = 23 + 7 = 30
[[3,2,7][8,6,5][1,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[3,7,5][8,0,6][1,4,2]]
Generated Nodes:
[[3,0,5][8,7,6][1,4,2]] - f(n) = 23 + 7 = 30
[[3,7,5][8,6,0][1,4,2]] - Already visited Node!
[[3,7,5][0,8,6][1,4,2]] - f(n) = 23 + 7 = 30
[[3,7,5][8,4,6][1,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,8,5][3,4,6][1,2,0]]
Generated Nodes:
[[7,8,5][3,4,0][1,2,6]] - Already visited Node!
[[7,8,5][3,4,6][1,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,5,2][1,0,4][6,8,3]]
Generated Nodes:
[[7,0,2][1,5,4][6,8,3]] - f(n) = 23 + 6 = 29
[[7,5,2][1,4,0][6,8,3]] - f(n) = 23 + 7 = 30
[[7,5,2][0,1,4][6,8,3]] - Already visited Node!
[[7,5,2][1,8,4][6,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,0][7,1,8][6,3,4]]
Generated Nodes:
[[5,0,2][7,1,8][6,3,4]] - Already visited Node!
[[5,2,8][7,1,0][6,3,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,2][1,4,3][6,8,0]]
Generated Nodes:
[[7,5,2][1,4,0][6,8,3]] - f(n) = 23 + 7 = 30
[[7,5,2][1,4,3][6,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[7,6,5][3,4,2][1,8,0]]
Generated Nodes:
[[7,6,5][3,4,0][1,8,2]] - f(n) = 23 + 7 = 30
[[7,6,5][3,4,2][1,0,8]] - Already visited Node!
Node Chosen for Level 23 - [[8,7,5][1,4,6][3,2,0]]
```

```
Generated Nodes:
[[8,7,5][1,4,0][3,2,6]] - Already visited Node!
[[8,7,5][1,4,6][3,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[8,2,7][3,0,5][6,1,4]]
Generated Nodes:
[[8,0,7][3,2,5][6,1,4]] - Already visited Node!
[[8,2,7][3,5,0][6,1,4]] - f(n) = 23 + 6 = 29
[[8,2,7][0,3,5][6,1,4]] - f(n) = 23 + 7 = 30
[[8,2,7][3,1,5][6,0,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,4][8,1,6][3,2,0]]
Generated Nodes:
[[7,5,4][8,1,0][3,2,6]] - Already visited Node!
[[7,5,4][8,1,6][3,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,1,5][3,0,4][2,8,6]]
Generated Nodes:
[[7,0,5][3,1,4][2,8,6]] - f(n) = 23 + 7 = 30
[[7,1,5][3,4,0][2,8,6]] - f(n) = 23 + 7 = 30
[[7,1,5][0,3,4][2,8,6]] - f(n) = 23 + 7 = 30
[[7,1,5][3,8,4][2,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,1,5][2,4,6][8,3,0]]
Generated Nodes:
[[7,1,5][2,4,0][8,3,6]] - Already visited Node!
[[7,1,5][2,4,6][8,0,3]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,1,5][2,3,4][0,8,6]]
Generated Nodes:
[[7,1,5][0,3,4][2,8,6]] - f(n) = 23 + 7 = 30
[[7,1,5][2,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,1,5][6,2,4][0,8,3]]
Generated Nodes:
[[7,1,5][0,2,4][6,8,3]] - f(n) = 23 + 7 = 30
[[7,1,5][6,2,4][8,0,3]] - Already visited Node!
```

```
Node Chosen for Level 23 - [[5,2,0][3,8,1][6,7,4]]
Generated Nodes:
[[5,0,2][3,8,1][6,7,4]] - Already visited Node!
[[5,2,1][3,8,0][6,7,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,2,0][7,3,8][6,4,1]]
Generated Nodes:
[[5,0,2][7,3,8][6,4,1]] - Already visited Node!
[[5,2,8][7,3,0][6,4,1]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,6,2][7,1,4][0,8,3]]
Generated Nodes:
[[5,6,2][0,1,4][7,8,3]] - f(n) = 23 + 6 = 29
[[5,6,2][7,1,4][8,0,3]] - Already visited Node!
Node Chosen for Level 23 - [[6,2,0][5,7,1][8,3,4]]
Generated Nodes:
[[6,0,2][5,7,1][8,3,4]] - Already visited Node!
[[6,2,1][5,7,0][8,3,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[7,5,2][6,4,3][0,8,1]]
Generated Nodes:
[[7,5,2][0,4,3][6,8,1]] - f(n) = 23 + 7 = 30
[[7,5,2][6,4,3][8,0,1]] - Already visited Node!
Node Chosen for Level 23 - [[5,2,0][8,1,7][3,6,4]]
Generated Nodes:
[[5,0,2][8,1,7][3,6,4]] - Already visited Node!
[[5,2,7][8,1,0][3,6,4]] - f(n) = 23 + 7 = 30
Node Chosen for Level 23 - [[5,3,1][7,6,2][0,8,4]]
Generated Nodes:
[[5,3,1][0,6,2][7,8,4]] - f(n) = 23 + 6 = 29
[[5,3,1][7,6,2][8,0,4]] - Already visited Node!
Node Chosen for Level 23 - [[7,4,5][1,6,3][0,8,2]]
Generated Nodes:
```

```
[[7,4,5][0,6,3][1,8,2]] - f(n) = 23 + 7 = 30
[[7,4,5][1,6,3][8,0,2]] - Already visited Node!
Node Chosen for Level 23 - [[7,3,5][1,2,4][0,8,6]]
Generated Nodes:
[[7,3,5][0,2,4][1,8,6]] - f(n) = 23 + 7 = 30
[[7,3,5][1,2,4][8,0,6]] - Already visited Node!
Node Chosen for Level 23 - [[7,3,5][1,0,6][8,4,2]]
Generated Nodes:
[[7,0,5][1,3,6][8,4,2]] - f(n) = 23 + 7 = 30
[[7,3,5][1,6,0][8,4,2]] - Already visited Node!
[[7,3,5][0,1,6][8,4,2]] - f(n) = 23 + 7 = 30
[[7,3,5][1,4,6][8,0,2]] - f(n) = 23 + 7 = 30
Node Chosen for Level 24 - [[4,0,2][7,5,3][1,8,6]]
Generated Nodes:
[[4,2,0][7,5,3][1,8,6]] - f(n) = 24 + 5 = 29
[[0,4,2][7,5,3][1,8,6]] - f(n) = 24 + 6 = 30
[[4,5,2][7,0,3][1,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[4,0,3][7,2,5][1,8,6]]
Generated Nodes:
[[4,3,0][7,2,5][1,8,6]] - Already visited Node!
[[0,4,3][7,2,5][1,8,6]] - f(n) = 24 + 6 = 30
[[4,2,3][7,0,5][1,8,6]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[8,0,2][4,5,1][3,6,7]]
Generated Nodes:
[[8,2,0][4,5,1][3,6,7]] - f(n) = 24 + 5 = 29
[[0,8,2][4,5,1][3,6,7]] - f(n) = 24 + 6 = 30
[[8,5,2][4,0,1][3,6,7]] - Already visited Node!
Node Chosen for Level 24 - [[8,0,1][4,5,7][3,6,2]]
Generated Nodes:
[[8,1,0][4,5,7][3,6,2]] - Already visited Node!
[[0,8,1][4,5,7][3,6,2]] - f(n) = 24 + 6 = 30
[[8,5,1][4,0,7][3,6,2]] - Already visited Node!
```

```
Node Chosen for Level 24 - [[8,4,1][0,5,2][7,3,6]]
Generated Nodes:
[[0,4,1][8,5,2][7,3,6]] - f(n) = 24 + 6 = 30
[[8,4,1][5,0,2][7,3,6]] - Already visited Node!
[[8,4,1][7,5,2][0,3,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[8,1,2][0,5,3][7,6,4]]
Generated Nodes:
[[0,1,2][8,5,3][7,6,4]] - f(n) = 24 + 6 = 30
[[8,1,2][5,0,3][7,6,4]] - Already visited Node!
[[8,1,2][7,5,3][0,6,4]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[1,5,8][0,3,2][7,6,4]]
Generated Nodes:
[[0,5,8][1,3,2][7,6,4]] - Already visited Node!
[[1,5,8][3,0,2][7,6,4]] - f(n) = 24 + 6 = 30
[[1,5,8][7,3,2][0,6,4]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[1,5,2][0,8,3][7,6,4]]
Generated Nodes:
[[0,5,2][1,8,3][7,6,4]] - Already visited Node!
[[1,5,2][8,0,3][7,6,4]] - f(n) = 24 + 6 = 30
[[1,5,2][7,8,3][0,6,4]] - f(n) = 24 + 7 = 31
Node Chosen for Level 25 - [[4,2,0][5,7,6][1,8,3]]
Generated Nodes:
[[4,0,2][5,7,6][1,8,3]] - Already visited Node!
[[4,2,6][5,7,0][1,8,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[4,0,2][7,5,3][1,8,6]]
Generated Nodes:
[[4,2,0][7,5,3][1,8,6]] - f(n) = 24 + 5 = 29
[[0,4,2][7,5,3][1,8,6]] - f(n) = 24 + 6 = 30
[[4,5,2][7,0,3][1,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[4,0,3][7,2,5][1,8,6]]
Generated Nodes:
```

[[4,3,0][7,2,5][1,8,6]] - Already visited Node!

```
[[0,4,3][7,2,5][1,8,6]] - f(n) = 24 + 6 = 30
[[4,2,3][7,0,5][1,8,6]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[8,2,4][0,5,1][3,6,7]]
Generated Nodes:
[[0,2,4][8,5,1][3,6,7]] - f(n) = 24 + 6 = 30
[[8,2,4][5,0,1][3,6,7]] - Already visited Node!
[[8,2,4][3,5,1][0,6,7]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[5,0,3][7,1,2][6,8,4]]
Generated Nodes:
[[5,3,0][7,1,2][6,8,4]] - Already visited Node!
[[0,5,3][7,1,2][6,8,4]] - f(n) = 24 + 6 = 30
[[5,1,3][7,0,2][6,8,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[3,5,2][1,4,6][7,8,0]]
Generated Nodes:
[[3,5,2][1,4,0][7,8,6]] - Already visited Node!
[[3,5,2][1,4,6][7,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[3,5,1][4,0,2][7,8,6]]
Generated Nodes:
[[3,0,1][4,5,2][7,8,6]] - f(n) = 25 + 4 = 29
[[3,5,1][4,2,0][7,8,6]] - f(n) = 25 + 5 = 30
[[3,5,1][0,4,2][7,8,6]] - Already visited Node!
[[3,5,1][4,8,2][7,0,6]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,4,1][3,2,6][7,8,0]]
Generated Nodes:
[[5,4,1][3,2,0][7,8,6]] - Already visited Node!
[[5,4,1][3,2,6][7,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 24 - [[1,5,2][0,6,8][7,3,4]]
Generated Nodes:
[[0,5,2][1,6,8][7,3,4]] - f(n) = 24 + 7 = 31
[[1,5,2][6,0,8][7,3,4]] - f(n) = 24 + 6 = 30
[[1,5,2][7,6,8][0,3,4]] - Already visited Node!
Node Chosen for Level 24 - [[1,8,5][0,2,4][7,3,6]]
```

```
Generated Nodes:
```

[[0,8,5][1,2,4][7,3,6]] - f(n) = 24 + 7 = 31

$$[[1,8,5][2,0,4][7,3,6]] - f(n) = 24 + 6 = 30$$

[[1,8,5][7,2,4][0,3,6]] - Already visited Node!

Node Chosen for Level 25 - [[8,2,0][5,1,6][7,4,3]]

Generated Nodes:

$$[[8,0,2][5,1,6][7,4,3]]$$
 - Already visited Node! $[[8,2,6][5,1,0][7,4,3]]$ - $f(n)$ = 25 + 6 = 31

Node Chosen for Level 25 - [[1,5,2][4,3,7][0,8,6]]

Generated Nodes:

$$[[1,5,2][0,3,7][4,8,6]] - f(n) = 25 + 6 = 31$$

 $[[1,5,2][4,3,7][8,0,6]] - Already visited Node!$

Node Chosen for Level 25 - [[1,7,5][4,6,3][0,8,2]]

Generated Nodes:

[[1,7,5][0,6,3][4,8,2]] - f(n) = 25 + 6 = 31

[[1,7,5][4,6,3][8,0,2]] - Already visited Node!

Node Chosen for Level 24 - [[8,2,1][0,5,4][3,7,6]]

Generated Nodes:

[[0,2,1][8,5,4][3,7,6]] - f(n) = 24 + 6 = 30[[8,2,1][5,0,4][3,7,6]] - Already visited Node!

[[8,2,1][3,5,4][0,7,6]] - f(n) = 24 + 6 = 30

Node Chosen for Level 24 - [[7,0,8][4,5,1][3,6,2]]

Generated Nodes:

$$[[7,8,0][4,5,1][3,6,2]] - f(n) = 24 + 6 = 30$$

 $[[0,7,8][4,5,1][3,6,2]] - f(n) = 24 + 6 = 30$
 $[[7,5,8][4,0,1][3,6,2]] - Already visited Node!$

Node Chosen for Level 24 - [[5,2,8][0,6,3][7,1,4]]

Generated Nodes:

[[0,2,8][5,6,3][7,1,4]] - f(n) = 24 + 6 = 30

[[5,2,8][6,0,3][7,1,4]] - f(n) = 24 + 6 = 30

[[5,2,8][7,6,3][0,1,4]] - Already visited Node!

Node Chosen for Level 24 - [[5,2,8][0,3,4][7,1,6]]

```
Generated Nodes:
```

```
[[0,2,8][5,3,4][7,1,6]] - f(n) = 24 + 6 = 30

[[5,2,8][3,0,4][7,1,6]] - f(n) = 24 + 6 = 30

[[5,2,8][7,3,4][0,1,6]] - Already visited Node!
```

Node Chosen for Level 24 - [[1,0,5][7,4,6][8,3,2]]

Generated Nodes:

```
[[1,5,0][7,4,6][8,3,2]] - f(n) = 24 + 6 = 30

[[0,1,5][7,4,6][8,3,2]] - Already visited Node!

[[1,4,5][7,0,6][8,3,2]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 24 - [[1,7,4][8,5,0][3,2,6]]

Generated Nodes:

```
[[1,7,0][8,5,4][3,2,6]] - f(n) = 24 + 6 = 30

[[1,7,4][8,0,5][3,2,6]] - Already visited Node!

[[1,7,4][8,5,6][3,2,0]] - f(n) = 24 + 5 = 29
```

Node Chosen for Level 25 - [[4,2,0][3,7,6][5,8,1]]

Generated Nodes:

```
[[4,0,2][3,7,6][5,8,1]] - Already visited Node! [[4,2,6][3,7,0][5,8,1]] - f(n) = 25 + 6 = 31
```

Node Chosen for Level 24 - [[3,8,2][0,5,4][7,1,6]]

Generated Nodes:

```
[[0,8,2][3,5,4][7,1,6]] - f(n) = 24 + 6 = 30

[[3,8,2][5,0,4][7,1,6]] - Already visited Node!

[[3,8,2][7,5,4][0,1,6]] - f(n) = 24 + 7 = 31
```

Node Chosen for Level 24 - [[5,0,3][8,4,2][7,1,6]]

Generated Nodes:

```
[[5,3,0][8,4,2][7,1,6]] - Already visited Node! [[0,5,3][8,4,2][7,1,6]] - f(n) = 24 + 6 = 30 [[5,4,3][8,0,2][7,1,6]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 25 - [[7,2,1][4,0,6][8,3,5]]

Generated Nodes:

```
[[7,0,1][4,2,6][8,3,5]] - f(n) = 25 + 6 = 31
[[7,2,1][4,6,0][8,3,5]] - f(n) = 25 + 6 = 31
```

```
[[7,2,1][0,4,6][8,3,5]] - Already visited Node!
[[7,2,1][4,3,6][8,0,5]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[1,2,0][8,7,6][3,4,5]]
Generated Nodes:
[[1,0,2][8,7,6][3,4,5]] - Already visited Node!
[[1,2,6][8,7,0][3,4,5]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,7,2][4,0,6][8,3,5]]
Generated Nodes:
[[1,0,2][4,7,6][8,3,5]] - f(n) = 25 + 5 = 30
[[1,7,2][4,6,0][8,3,5]] - f(n) = 25 + 6 = 31
[[1,7,2][0,4,6][8,3,5]] - Already visited Node!
[[1,7,2][4,3,6][8,0,5]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[7,2,1][3,0,6][4,8,5]]
Generated Nodes:
[[7,0,1][3,2,6][4,8,5]] - f(n) = 25 + 6 = 31
[[7,2,1][3,6,0][4,8,5]] - f(n) = 25 + 6 = 31
[[7,2,1][0,3,6][4,8,5]] - f(n) = 25 + 5 = 30
[[7,2,1][3,8,6][4,0,5]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,1][4,0,6][8,3,5]]
Generated Nodes:
[[7,0,1][4,2,6][8,3,5]] - f(n) = 25 + 6 = 31
[[7,2,1][4,6,0][8,3,5]] - f(n) = 25 + 6 = 31
[[7,2,1][0,4,6][8,3,5]] - Already visited Node!
[[7,2,1][4,3,6][8,0,5]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[1,4,5][0,8,2][7,3,6]]
Generated Nodes:
[[0,4,5][1,8,2][7,3,6]] - Already visited Node!
[[1,4,5][8,0,2][7,3,6]] - f(n) = 24 + 6 = 30
[[1,4,5][7,8,2][0,3,6]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[4,1,8][0,5,2][7,3,6]]
Generated Nodes:
[[0,1,8][4,5,2][7,3,6]] - Already visited Node!
[[4,1,8][5,0,2][7,3,6]] - Already visited Node!
[[4,1,8][7,5,2][0,3,6]] - f(n) = 24 + 7 = 31
```

```
Node Chosen for Level 24 - [[8,6,2][0,5,1][7,3,4]]
Generated Nodes:
[[0,6,2][8,5,1][7,3,4]] - f(n) = 24 + 6 = 30
[[8,6,2][5,0,1][7,3,4]] - Already visited Node!
[[8,6,2][7,5,1][0,3,4]] - f(n) = 24 + 7 = 31
Node Chosen for Level 24 - [[8,6,2][0,5,1][7,3,4]]
Generated Nodes:
[[0,6,2][8,5,1][7,3,4]] - f(n) = 24 + 6 = 30
[[8,6,2][5,0,1][7,3,4]] - Already visited Node!
[[8,6,2][7,5,1][0,3,4]] - f(n) = 24 + 7 = 31
Node Chosen for Level 25 - [[3,7,5][4,0,6][2,8,1]]
Generated Nodes:
[[3,0,5][4,7,6][2,8,1]] - f(n) = 25 + 5 = 30
[[3,7,5][4,6,0][2,8,1]] - f(n) = 25 + 6 = 31
[[3,7,5][0,4,6][2,8,1]] - Already visited Node!
[[3,7,5][4,8,6][2,0,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[8,2,0][5,1,6][7,4,3]]
Generated Nodes:
[[8,0,2][5,1,6][7,4,3]] - Already visited Node!
[[8,2,6][5,1,0][7,4,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[4,2,5][7,0,6][1,8,3]]
Generated Nodes:
[[4,0,5][7,2,6][1,8,3]] - Already visited Node!
[[4,2,5][7,6,0][1,8,3]] - f(n) = 25 + 6 = 31
[[4,2,5][0,7,6][1,8,3]] - f(n) = 25 + 5 = 30
[[4,2,5][7,8,6][1,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[4,2,5][7,0,6][1,8,3]]
Generated Nodes:
[[4,0,5][7,2,6][1,8,3]] - Already visited Node!
[[4,2,5][7,6,0][1,8,3]] - f(n) = 25 + 6 = 31
[[4,2,5][0,7,6][1,8,3]] - f(n) = 25 + 5 = 30
[[4,2,5][7,8,6][1,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[8,5,2][4,1,6][7,3,0]]
```

```
Generated Nodes:
[[8,5,2][4,1,0][7,3,6]] - Already visited Node!
[[8,5,2][4,1,6][7,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[8,1,5][4,2,6][7,3,0]]
Generated Nodes:
[[8,1,5][4,2,0][7,3,6]] - Already visited Node!
[[8,1,5][4,2,6][7,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,2,4][6,3,1][7,8,0]]
Generated Nodes:
[[5,2,4][6,3,0][7,8,1]] - f(n) = 25 + 5 = 30
[[5,2,4][6,3,1][7,0,8]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,1][3,5,7][6,0,4]]
Generated Nodes:
[[8,2,1][3,0,7][6,5,4]] - Already visited Node!
[[8,2,1][3,5,7][6,4,0]] - f(n) = 24 + 6 = 30
[[8,2,1][3,5,7][0,6,4]] - Already visited Node!
Node Chosen for Level 24 - [[3,2,8][0,5,7][1,6,4]]
Generated Nodes:
[[0,2,8][3,5,7][1,6,4]] - f(n) = 24 + 6 = 30
[[3,2,8][5,0,7][1,6,4]] - Already visited Node!
[[3,2,8][1,5,7][0,6,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[1,5,4][2,8,6][7,3,0]]
Generated Nodes:
[[1,5,4][2,8,0][7,3,6]] - Already visited Node!
[[1,5,4][2,8,6][7,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[6,7,2][4,5,1][0,8,3]]
Generated Nodes:
[[6,7,2][0,5,1][4,8,3]] - Already visited Node!
[[6,7,2][4,5,1][8,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[3,2,0][5,4,6][7,1,8]]
```

```
Generated Nodes:
```

$$[[3,0,2][5,4,6][7,1,8]]$$
 - Already visited Node! $[[3,2,6][5,4,0][7,1,8]]$ - $f(n)$ = 25 + 6 = 31

Node Character Lavel 24 [[7 0 2][4 5 0][1 2 6]]

Node Chosen for Level 24 - [[7,0,2][4,5,8][1,3,6]]

Generated Nodes:

```
[[7,2,0][4,5,8][1,3,6]] - f(n) = 24 + 5 = 29

[[0,7,2][4,5,8][1,3,6]] - f(n) = 24 + 6 = 30

[[7,5,2][4,0,8][1,3,6]] - Already visited Node!
```

Node Chosen for Level 24 - [[2,4,8][0,5,6][3,7,1]]

Generated Nodes:

```
[[0,4,8][2,5,6][3,7,1]] - f(n) = 24 + 6 = 30

[[2,4,8][5,0,6][3,7,1]] - Already visited Node!

[[2,4,8][3,5,6][0,7,1]] - f(n) = 24 + 6 = 30
```

Node Chosen for Level 25 - [[5,2,0][8,1,6][7,3,4]]

Generated Nodes:

$$[[5,0,2][8,1,6][7,3,4]] - f(n) = 25 + 6 = 31$$

 $[[5,2,6][8,1,0][7,3,4]] - Already visited Node!$

Node Chosen for Level 24 - [[8,0,2][3,5,6][1,7,4]]

Generated Nodes:

```
[[8,2,0][3,5,6][1,7,4]] - f(n) = 24 + 5 = 29

[[0,8,2][3,5,6][1,7,4]] - f(n) = 24 + 6 = 30

[[8,5,2][3,0,6][1,7,4]] - Already visited Node!
```

Node Chosen for Level 24 - [[4,2,8][0,1,5][7,3,6]]

Generated Nodes:

```
[[0,2,8][4,1,5][7,3,6]] - f(n) = 24 + 5 = 29

[[4,2,8][1,0,5][7,3,6]] - f(n) = 24 + 6 = 30

[[4,2,8][7,1,5][0,3,6]] - Already visited Node!
```

Node Chosen for Level 24 - [[4,0,2][7,5,6][8,1,3]]

Generated Nodes:

```
[[4,2,0][7,5,6][8,1,3]] - f(n) = 24 + 5 = 29

[[0,4,2][7,5,6][8,1,3]] - f(n) = 24 + 6 = 30

[[4,5,2][7,0,6][8,1,3]] - Already visited Node!
```

```
Node Chosen for Level 24 - [[8,2,4][0,5,3][1,7,6]]
Generated Nodes:
[[0,2,4][8,5,3][1,7,6]] - f(n) = 24 + 6 = 30
[[8,2,4][5,0,3][1,7,6]] - Already visited Node!
[[8,2,4][1,5,3][0,7,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,3,5][0,7,2][6,8,4]]
Generated Nodes:
[[0,3,5][1,7,2][6,8,4]] - Already visited Node!
[[1,3,5][7,0,2][6,8,4]] - Already visited Node!
[[1,3,5][6,7,2][0,8,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,8,5][0,7,6][3,4,2]]
Generated Nodes:
[[0,8,5][1,7,6][3,4,2]] - Already visited Node!
[[1,8,5][7,0,6][3,4,2]] - Already visited Node!
[[1,8,5][3,7,6][0,4,2]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,0,2][1,5,4][6,8,3]]
Generated Nodes:
[[7,2,0][1,5,4][6,8,3]] - f(n) = 24 + 5 = 29
[[0,7,2][1,5,4][6,8,3]] - f(n) = 24 + 6 = 30
[[7,5,2][1,0,4][6,8,3]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,4][6,3,1][7,8,0]]
Generated Nodes:
[[5,2,4][6,3,0][7,8,1]] - f(n) = 25 + 5 = 30
[[5,2,4][6,3,1][7,0,8]] - Already visited Node!
Node Chosen for Level 25 - [[8,7,2][4,5,6][0,1,3]]
Generated Nodes:
[[8,7,2][0,5,6][4,1,3]] - Already visited Node!
[[8,7,2][4,5,6][1,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,2,1][8,4,6][7,3,0]]
Generated Nodes:
[[5,2,1][8,4,0][7,3,6]] - Already visited Node!
[[5,2,1][8,4,6][7,0,3]] - f(n) = 25 + 5 = 30
```

```
Node Chosen for Level 27 - [[1,4,3][5,2,6][7,8,0]]
Generated Nodes:
[[1,4,3][5,2,0][7,8,6]] - Already visited Node!
[[1,4,3][5,2,6][7,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 26 - [[1,0,2][4,5,6][8,7,3]]
Generated Nodes:
[[1,2,0][4,5,6][8,7,3]] - f(n) = 26 + 3 = 29
[[0,1,2][4,5,6][8,7,3]] - f(n) = 26 + 5 = 31
[[1,5,2][4,0,6][8,7,3]] - Already visited Node!
Node Chosen for Level 25 - [[4,2,8][5,0,6][7,3,1]]
Generated Nodes:
[[4,0,8][5,2,6][7,3,1]] - Already visited Node!
[[4,2,8][5,6,0][7,3,1]] - f(n) = 25 + 6 = 31
[[4,2,8][0,5,6][7,3,1]] - f(n) = 25 + 4 = 29
[[4,2,8][5,3,6][7,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[4,2,8][5,0,6][7,3,1]]
Generated Nodes:
[[4,0,8][5,2,6][7,3,1]] - Already visited Node!
[[4,2,8][5,6,0][7,3,1]] - f(n) = 25 + 6 = 31
[[4,2,8][0,5,6][7,3,1]] - f(n) = 25 + 4 = 29
[[4,2,8][5,3,6][7,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 26 - [[1,0,2][8,5,6][7,4,3]]
Generated Nodes:
[[1,2,0][8,5,6][7,4,3]] - f(n) = 26 + 3 = 29
[[0,1,2][8,5,6][7,4,3]] - Already visited Node!
[[1,5,2][8,0,6][7,4,3]] - Already visited Node!
Node Chosen for Level 26 - [[4,2,8][0,5,6][7,3,1]]
Generated Nodes:
[[0,2,8][4,5,6][7,3,1]] - f(n) = 26 + 3 = 29
[[4,2,8][5,0,6][7,3,1]] - Already visited Node!
[[4,2,8][7,5,6][0,3,1]] - Already visited Node!
Node Chosen for Level 25 - [[4,2,0][5,6,1][7,8,3]]
```

```
Generated Nodes:
[[4,0,2][5,6,1][7,8,3]] - Already visited Node!
[[4,2,1][5,6,0][7,8,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,2,0][6,4,1][7,8,3]]
Generated Nodes:
[[5,0,2][6,4,1][7,8,3]] - Already visited Node!
[[5,2,1][6,4,0][7,8,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[4,1,5][3,2,6][7,8,0]]
Generated Nodes:
[[4,1,5][3,2,0][7,8,6]] - Already visited Node!
[[4,1,5][3,2,6][7,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[6,2,0][5,3,1][7,8,4]]
Generated Nodes:
[[6,0,2][5,3,1][7,8,4]] - Already visited Node!
[[6,2,1][5,3,0][7,8,4]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,2,0][3,6,1][7,8,4]]
Generated Nodes:
[[5,0,2][3,6,1][7,8,4]] - Already visited Node!
[[5,2,1][3,6,0][7,8,4]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[7,1,2][4,5,6][8,3,0]]
Generated Nodes:
[[7,1,2][4,5,0][8,3,6]] - Already visited Node!
[[7,1,2][4,5,6][8,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,4,1][3,2,6][7,8,0]]
Generated Nodes:
[[5,4,1][3,2,0][7,8,6]] - Already visited Node!
[[5,4,1][3,2,6][7,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,2,3][7,6,1][0,8,4]]
Generated Nodes:
[[5,2,3][0,6,1][7,8,4]] - f(n) = 25 + 4 = 29
```

```
[[5,2,3][7,6,1][8,0,4]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,3][7,1,4][0,8,6]]
Generated Nodes:
[[5,2,3][0,1,4][7,8,6]] - f(n) = 25 + 4 = 29
[[5,2,3][7,1,4][8,0,6]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,0][6,1,3][7,8,4]]
Generated Nodes:
[[5,0,2][6,1,3][7,8,4]] - Already visited Node!
[[5,2,3][6,1,0][7,8,4]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[5,2,3][7,6,1][0,8,4]]
Generated Nodes:
[[5,2,3][0,6,1][7,8,4]] - f(n) = 25 + 4 = 29
[[5,2,3][7,6,1][8,0,4]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,3][7,1,4][0,8,6]]
Generated Nodes:
[[5,2,3][0,1,4][7,8,6]] - f(n) = 25 + 4 = 29
[[5,2,3][7,1,4][8,0,6]] - Already visited Node!
Node Chosen for Level 27 - [[1,8,2][4,5,6][7,3,0]]
Generated Nodes:
[[1,8,2][4,5,0][7,3,6]] - Already visited Node!
[[1,8,2][4,5,6][7,0,3]] - f(n) = 27 + 3 = 30
Node Chosen for Level 27 - [[1,5,2][4,3,6][7,8,0]]
Generated Nodes:
[[1,5,2][4,3,0][7,8,6]] - Already visited Node!
[[1,5,2][4,3,6][7,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[1,3,5][4,2,6][7,8,0]]
Generated Nodes:
[[1,3,5][4,2,0][7,8,6]] - Already visited Node!
[[1,3,5][4,2,6][7,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 25 - [[7,2,0][3,4,6][1,8,5]]
```

```
Generated Nodes:
[[7,0,2][3,4,6][1,8,5]] - f(n) = 25 + 6 = 31
[[7,2,6][3,4,0][1,8,5]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,0][4,8,6][3,5,1]]
Generated Nodes:
[[7,0,2][4,8,6][3,5,1]] - Already visited Node!
[[7,2,6][4,8,0][3,5,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[7,2,1][5,4,6][0,8,3]]
Generated Nodes:
[[7,2,1][0,4,6][5,8,3]] - f(n) = 25 + 5 = 30
[[7,2,1][5,4,6][8,0,3]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,0][4,8,6][1,7,3]]
Generated Nodes:
[[5,0,2][4,8,6][1,7,3]] - Already visited Node!
[[5,2,6][4,8,0][1,7,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,5,2][7,4,6][3,8,0]]
Generated Nodes:
[[1,5,2][7,4,0][3,8,6]] - Already visited Node!
[[1,5,2][7,4,6][3,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 26 - [[3,2,4][1,5,6][7,0,8]]
Generated Nodes:
[[3,2,4][1,0,6][7,5,8]] - f(n) = 26 + 5 = 31
[[3,2,4][1,5,6][7,8,0]] - f(n) = 26 + 3 = 29
[[3,2,4][1,5,6][0,7,8]] - Already visited Node!
Node Chosen for Level 27 - [[3,2,4][1,5,6][7,8,0]]
Generated Nodes:
[[3,2,4][1,5,0][7,8,6]] - Already visited Node!
[[3,2,4][1,5,6][7,0,8]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,5][4,8,6][0,3,1]]
Generated Nodes:
```

```
[[7,2,5][0,8,6][4,3,1]] - Already visited Node!
[[7,2,5][4,8,6][3,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[3,2,0][4,7,6][5,1,8]]
Generated Nodes:
[[3,0,2][4,7,6][5,1,8]] - Already visited Node!
[[3,2,6][4,7,0][5,1,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[3,7,2][4,1,6][5,8,0]]
Generated Nodes:
[[3,7,2][4,1,0][5,8,6]] - f(n) = 25 + 6 = 31
[[3,7,2][4,1,6][5,0,8]] - Already visited Node!
Node Chosen for Level 25 - [[5,2,1][7,0,6][4,8,3]]
Generated Nodes:
[[5,0,1][7,2,6][4,8,3]] - f(n) = 25 + 6 = 31
[[5,2,1][7,6,0][4,8,3]] - Already visited Node!
[[5,2,1][0,7,6][4,8,3]] - f(n) = 25 + 5 = 30
[[5,2,1][7,8,6][4,0,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[7,2,0][3,1,6][5,8,4]]
Generated Nodes:
[[7,0,2][3,1,6][5,8,4]] - f(n) = 25 + 6 = 31
[[7,2,6][3,1,0][5,8,4]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,1][3,4,6][5,8,0]]
Generated Nodes:
[[7,2,1][3,4,0][5,8,6]] - Already visited Node!
[[7,2,1][3,4,6][5,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[7,3,5][4,2,6][0,8,1]]
Generated Nodes:
[[7,3,5][0,2,6][4,8,1]] - f(n) = 25 + 6 = 31
[[7,3,5][4,2,6][8,0,1]] - Already visited Node!
Node Chosen for Level 25 - [[5,3,7][4,2,6][1,8,0]]
Generated Nodes:
```

```
[[5,3,7][4,2,0][1,8,6]] - Already visited Node!
[[5,3,7][4,2,6][1,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[1,4,7][5,2,6][0,8,3]]
Generated Nodes:
[[1,4,7][0,2,6][5,8,3]] - f(n) = 25 + 5 = 30
[[1,4,7][5,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 24 - [[4,0,2][1,5,8][7,3,6]]
Generated Nodes:
[[4,2,0][1,5,8][7,3,6]] - f(n) = 24 + 5 = 29
[[0,4,2][1,5,8][7,3,6]] - f(n) = 24 + 6 = 30
[[4,5,2][1,0,8][7,3,6]] - Already visited Node!
Node Chosen for Level 24 - [[1,8,4][7,5,0][3,6,2]]
Generated Nodes:
[[1,8,0][7,5,4][3,6,2]] - f(n) = 24 + 6 = 30
[[1,8,4][7,0,5][3,6,2]] - Already visited Node!
[[1,8,4][7,5,2][3,6,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[8,3,2][1,5,4][7,0,6]]
Generated Nodes:
[[8,3,2][1,0,4][7,5,6]] - f(n) = 24 + 7 = 31
[[8,3,2][1,5,4][7,6,0]] - f(n) = 24 + 6 = 30
[[8,3,2][1,5,4][0,7,6]] - Already visited Node!
Node Chosen for Level 24 - [[1,7,8][0,5,2][3,6,4]]
Generated Nodes:
[[0,7,8][1,5,2][3,6,4]] - Already visited Node!
[[1,7,8][5,0,2][3,6,4]] - Already visited Node!
[[1,7,8][3,5,2][0,6,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,7,8][0,5,2][3,6,4]]
Generated Nodes:
[[0,7,8][1,5,2][3,6,4]] - Already visited Node!
[[1,7,8][5,0,2][3,6,4]] - Already visited Node!
[[1,7,8][3,5,2][0,6,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,0,8][5,6,2][7,3,4]]
```

```
Generated Nodes:
[[1,8,0][5,6,2][7,3,4]] - f(n) = 24 + 6 = 30
[[0,1,8][5,6,2][7,3,4]] - Already visited Node!
[[1,6,8][5,0,2][7,3,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,7,2][0,5,3][6,4,8]]
Generated Nodes:
[[0,7,2][1,5,3][6,4,8]] - Already visited Node!
[[1,7,2][5,0,3][6,4,8]] - f(n) = 24 + 7 = 31
[[1,7,2][6,5,3][0,4,8]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,8,2][0,5,7][3,6,4]]
Generated Nodes:
[[0,8,2][1,5,7][3,6,4]] - Already visited Node!
[[1,8,2][5,0,7][3,6,4]] - f(n) = 24 + 7 = 31
[[1,8,2][3,5,7][0,6,4]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,8,7][2,5,0][3,6,4]]
Generated Nodes:
[[1,8,0][2,5,7][3,6,4]] - f(n) = 24 + 6 = 30
[[1,8,7][2,0,5][3,6,4]] - Already visited Node!
[[1,8,7][2,5,4][3,6,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[1,8,2][0,5,4][3,7,6]]
Generated Nodes:
[[0,8,2][1,5,4][3,7,6]] - f(n) = 24 + 7 = 31
[[1,8,2][5,0,4][3,7,6]] - Already visited Node!
[[1,8,2][3,5,4][0,7,6]] - f(n) = 24 + 6 = 30
Node Chosen for Level 25 - [[2,7,5][4,3,6][0,8,1]]
Generated Nodes:
[[2,7,5][0,3,6][4,8,1]] - f(n) = 25 + 6 = 31
[[2,7,5][4,3,6][8,0,1]] - Already visited Node!
Node Chosen for Level 25 - [[1,5,2][7,4,6][3,8,0]]
Generated Nodes:
```

[[1,5,2][7,4,0][3,8,6]] - Already visited Node! [[1,5,2][7,4,6][3,0,8]] - f(n) = 25 + 6 = 31

```
Node Chosen for Level 26 - [[1,0,2][8,5,6][7,4,3]]
Generated Nodes:
[[1,2,0][8,5,6][7,4,3]] - f(n) = 26 + 3 = 29
[[0,1,2][8,5,6][7,4,3]] - Already visited Node!
[[1,5,2][8,0,6][7,4,3]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,5][4,8,6][3,1,0]]
Generated Nodes:
[[7,2,5][4,8,0][3,1,6]] - Already visited Node!
[[7,2,5][4,8,6][3,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,2,0][4,8,6][3,1,7]]
Generated Nodes:
[[5,0,2][4,8,6][3,1,7]] - Already visited Node!
[[5,2,6][4,8,0][3,1,7]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[7,1,5][4,3,6][0,8,2]]
Generated Nodes:
[[7,1,5][0,3,6][4,8,2]] - Already visited Node!
[[7,1,5][4,3,6][8,0,2]] - Already visited Node!
Node Chosen for Level 25 - [[7,1,5][4,3,6][0,8,2]]
Generated Nodes:
[[7,1,5][0,3,6][4,8,2]] - Already visited Node!
[[7,1,5][4,3,6][8,0,2]] - Already visited Node!
Node Chosen for Level 25 - [[3,2,4][5,8,6][7,1,0]]
Generated Nodes:
[[3,2,4][5,8,0][7,1,6]] - Already visited Node!
[[3,2,4][5,8,6][7,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[8,2,1][5,0,6][7,3,4]]
Generated Nodes:
[[8,0,1][5,2,6][7,3,4]] - f(n) = 25 + 6 = 31
[[8,2,1][5,6,0][7,3,4]] - Already visited Node!
[[8,2,1][0,5,6][7,3,4]] - f(n) = 25 + 4 = 29
[[8,2,1][5,3,6][7,0,4]] - f(n) = 25 + 5 = 30
```

```
Node Chosen for Level 25 - [[1,5,2][7,3,6][0,8,4]]
Generated Nodes:
[[1,5,2][0,3,6][7,8,4]] - f(n) = 25 + 4 = 29
[[1,5,2][7,3,6][8,0,4]] - Already visited Node!
Node Chosen for Level 25 - [[8,2,1][5,0,6][7,3,4]]
Generated Nodes:
[[8,0,1][5,2,6][7,3,4]] - f(n) = 25 + 6 = 31
[[8,2,1][5,6,0][7,3,4]] - Already visited Node!
[[8,2,1][0,5,6][7,3,4]] - f(n) = 25 + 4 = 29
[[8,2,1][5,3,6][7,0,4]] - f(n) = 25 + 5 = 30
Node Chosen for Level 26 - [[1,0,2][8,5,6][7,4,3]]
Generated Nodes:
[[1,2,0][8,5,6][7,4,3]] - f(n) = 26 + 3 = 29
[[0,1,2][8,5,6][7,4,3]] - Already visited Node!
[[1,5,2][8,0,6][7,4,3]] - Already visited Node!
Node Chosen for Level 25 - [[3,2,4][1,7,6][0,8,5]]
Generated Nodes:
[[3,2,4][0,7,6][1,8,5]] - f(n) = 25 + 5 = 30
[[3,2,4][1,7,6][8,0,5]] - Already visited Node!
Node Chosen for Level 25 - [[3,7,2][4,0,6][1,8,5]]
Generated Nodes:
[[3,0,2][4,7,6][1,8,5]] - f(n) = 25 + 5 = 30
[[3,7,2][4,6,0][1,8,5]] - f(n) = 25 + 6 = 31
[[3,7,2][0,4,6][1,8,5]] - Already visited Node!
[[3,7,2][4,8,6][1,0,5]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[5,2,8][4,7,6][3,1,0]]
Generated Nodes:
[[5,2,8][4,7,0][3,1,6]] - Already visited Node!
[[5,2,8][4,7,6][3,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[7,5,1][4,2,6][0,8,3]]
Generated Nodes:
[[7,5,1][0,2,6][4,8,3]] - f(n) = 25 + 6 = 31
```

```
[[7,5,1][4,2,6][8,0,3]] - Already visited Node!
Node Chosen for Level 26 - [[1,6,2][0,5,3][7,8,4]]
Generated Nodes:
[[0,6,2][1,5,3][7,8,4]] - f(n) = 26 + 5 = 31
[[1,6,2][5,0,3][7,8,4]] - Already visited Node!
[[1,6,2][7,5,3][0,8,4]] - f(n) = 26 + 5 = 31
Node Chosen for Level 25 - [[0,2,8][7,5,6][3,4,1]]
Generated Nodes:
[[2,0,8][7,5,6][3,4,1]] - Already visited Node!
[[7,2,8][0,5,6][3,4,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 27 - [[7,2,1][4,5,6][3,8,0]]
Generated Nodes:
[[7,2,1][4,5,0][3,8,6]] - Already visited Node!
[[7,2,1][4,5,6][3,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 26 - [[1,2,3][0,5,7][8,6,4]]
Generated Nodes:
[[0,2,3][1,5,7][8,6,4]] - f(n) = 26 + 5 = 31
[[1,2,3][5,0,7][8,6,4]] - Already visited Node!
[[1,2,3][8,5,7][0,6,4]] - f(n) = 26 + 4 = 30
Node Chosen for Level 26 - [[1,2,3][0,5,7][8,6,4]]
Generated Nodes:
[[0,2,3][1,5,7][8,6,4]] - f(n) = 26 + 5 = 31
[[1,2,3][5,0,7][8,6,4]] - Already visited Node!
[[1,2,3][8,5,7][0,6,4]] - f(n) = 26 + 4 = 30
Node Chosen for Level 25 - [[5,2,0][4,1,8][7,3,6]]
Generated Nodes:
[[5,0,2][4,1,8][7,3,6]] - Already visited Node!
[[5,2,8][4,1,0][7,3,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[4,2,1][7,5,6][8,3,0]]
Generated Nodes:
[[4,2,1][7,5,0][8,3,6]] - Already visited Node!
```

```
[[4,2,1][7,5,6][8,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[3,2,4][8,5,6][1,7,0]]
Generated Nodes:
[[3,2,4][8,5,0][1,7,6]] - Already visited Node!
[[3,2,4][8,5,6][1,0,7]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[1,2,5][7,4,6][8,3,0]]
Generated Nodes:
[[1,2,5][7,4,0][8,3,6]] - Already visited Node!
[[1,2,5][7,4,6][8,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[1,2,5][7,3,4][0,8,6]]
Generated Nodes:
[[1,2,5][0,3,4][7,8,6]] - f(n) = 25 + 4 = 29
[[1,2,5][7,3,4][8,0,6]] - Already visited Node!
Node Chosen for Level 25 - [[1,2,4][5,8,6][3,7,0]]
Generated Nodes:
[[1,2,4][5,8,0][3,7,6]] - Already visited Node!
[[1,2,4][5,8,6][3,0,7]] - f(n) = 25 + 5 = 30
Node Chosen for Level 27 - [[1,7,2][4,5,6][3,8,0]]
Generated Nodes:
[[1,7,2][4,5,0][3,8,6]] - f(n) = 27 + 4 = 31
[[1,7,2][4,5,6][3,0,8]] - Already visited Node!
Node Chosen for Level 27 - [[1,2,4][7,5,6][3,8,0]]
Generated Nodes:
[[1,2,4][7,5,0][3,8,6]] - Already visited Node!
[[1,2,4][7,5,6][3,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[1,2,4][7,5,6][3,8,0]]
Generated Nodes:
[[1,2,4][7,5,0][3,8,6]] - Already visited Node!
[[1,2,4][7,5,6][3,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 25 - [[7,2,0][4,5,3][1,6,8]]
```

```
Generated Nodes:
[[7,0,2][4,5,3][1,6,8]] - Already visited Node!
[[7,2,3][4,5,0][1,6,8]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[7,2,0][4,5,8][1,3,6]]
Generated Nodes:
[[7,0,2][4,5,8][1,3,6]] - Already visited Node!
[[7,2,8][4,5,0][1,3,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[2,4,3][5,7,6][1,8,0]]
Generated Nodes:
[[2,4,3][5,7,0][1,8,6]] - Already visited Node!
[[2,4,3][5,7,6][1,0,8]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[8,2,0][7,5,6][4,3,1]]
Generated Nodes:
[[8,0,2][7,5,6][4,3,1]] - Already visited Node!
[[8,2,6][7,5,0][4,3,1]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[8,2,7][1,5,6][4,3,0]]
Generated Nodes:
[[8,2,7][1,5,0][4,3,6]] - Already visited Node!
[[8,2,7][1,5,6][4,0,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 27 - [[1,4,3][5,2,6][7,8,0]]
Generated Nodes:
[[1,4,3][5,2,0][7,8,6]] - Already visited Node!
[[1,4,3][5,2,6][7,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[4,2,0][1,5,6][7,8,3]]
Generated Nodes:
[[4,0,2][1,5,6][7,8,3]] - Already visited Node!
[[4,2,6][1,5,0][7,8,3]] - f(n) = 27 + 4 = 31
Node Chosen for Level 25 - [[0,2,6][4,5,7][8,3,1]]
Generated Nodes:
```

```
[[2,0,6][4,5,7][8,3,1]] - f(n) = 25 + 6 = 31
[[4,2,6][0,5,7][8,3,1]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,0][1,5,3][4,8,6]]
Generated Nodes:
[[7,0,2][1,5,3][4,8,6]] - Already visited Node!
[[7,2,3][1,5,0][4,8,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[7,2,0][1,5,3][4,8,6]]
Generated Nodes:
[[7,0,2][1,5,3][4,8,6]] - Already visited Node!
[[7,2,3][1,5,0][4,8,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[0,2,6][4,5,7][8,3,1]]
Generated Nodes:
[[2,0,6][4,5,7][8,3,1]] - f(n) = 25 + 6 = 31
[[4,2,6][0,5,7][8,3,1]] - Already visited Node!
Node Chosen for Level 27 - [[0,2,6][4,5,3][7,8,1]]
Generated Nodes:
[[2,0,6][4,5,3][7,8,1]] - f(n) = 27 + 4 = 31
[[4,2,6][0,5,3][7,8,1]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,3][7,4,0][8,1,6]]
Generated Nodes:
[[5,2,0][7,4,3][8,1,6]] - Already visited Node!
[[5,2,3][7,0,4][8,1,6]] - f(n) = 24 + 6 = 30
[[5,2,3][7,4,6][8,1,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[2,1,4][0,3,5][7,8,6]]
Generated Nodes:
[[0,1,4][2,3,5][7,8,6]] - f(n) = 24 + 6 = 30
[[2,1,4][3,0,5][7,8,6]] - f(n) = 24 + 6 = 30
[[2,1,4][7,3,5][0,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[5,2,3][7,4,0][8,1,6]]
Generated Nodes:
[[5,2,0][7,4,3][8,1,6]] - Already visited Node!
```

```
[[5,2,3][7,0,4][8,1,6]] - f(n) = 24 + 6 = 30
[[5,2,3][7,4,6][8,1,0]] - f(n) = 24 + 5 = 29
Node Chosen for Level 24 - [[5,4,2][0,1,3][7,8,6]]
Generated Nodes:
[[0,4,2][5,1,3][7,8,6]] - f(n) = 24 + 6 = 30
[[5,4,2][1,0,3][7,8,6]] - f(n) = 24 + 6 = 30
[[5,4,2][7,1,3][0,8,6]] - Already visited Node!
Node Chosen for Level 26 - [[5,2,3][4,8,0][7,1,6]]
Generated Nodes:
[[5,2,0][4,8,3][7,1,6]] - Already visited Node!
[[5,2,3][4,0,8][7,1,6]] - f(n) = 26 + 4 = 30
[[5,2,3][4,8,6][7,1,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 25 - [[7,2,0][6,5,4][3,8,1]]
Generated Nodes:
[[7,0,2][6,5,4][3,8,1]] - Already visited Node!
[[7,2,4][6,5,0][3,8,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[7,2,0][4,5,8][3,6,1]]
Generated Nodes:
[[7,0,2][4,5,8][3,6,1]] - Already visited Node!
[[7,2,8][4,5,0][3,6,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 24 - [[5,6,4][0,3,2][7,8,1]]
Generated Nodes:
[[0,6,4][5,3,2][7,8,1]] - f(n) = 24 + 6 = 30
[[5,6,4][3,0,2][7,8,1]] - f(n) = 24 + 6 = 30
[[5,6,4][7,3,2][0,8,1]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,7][6,5,0][3,4,1]]
Generated Nodes:
[[8,2,0][6,5,7][3,4,1]] - f(n) = 24 + 6 = 30
[[8,2,7][6,0,5][3,4,1]] - Already visited Node!
[[8,2,7][6,5,1][3,4,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[3,8,7][4,5,0][1,6,2]]
```

Generated Nodes:

```
[[3,8,0][4,5,7][1,6,2]] - f(n) = 24 + 6 = 30
[[3,8,7][4,0,5][1,6,2]] - Already visited Node!
[[3,8,7][4,5,2][1,6,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,1,4][3,5,0][6,8,2]]
Generated Nodes:
[[7,1,0][3,5,4][6,8,2]] - f(n) = 24 + 6 = 30
[[7,1,4][3,0,5][6,8,2]] - Already visited Node!
[[7,1,4][3,5,2][6,8,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[4,5,2][0,3,1][7,8,6]]
Generated Nodes:
[[0,5,2][4,3,1][7,8,6]] - f(n) = 24 + 5 = 29
[[4,5,2][3,0,1][7,8,6]] - f(n) = 24 + 6 = 30
[[4,5,2][7,3,1][0,8,6]] - Already visited Node!
Node Chosen for Level 24 - [[3,0,8][4,5,2][1,7,6]]
Generated Nodes:
[[3,8,0][4,5,2][1,7,6]] - f(n) = 24 + 6 = 30
[[0,3,8][4,5,2][1,7,6]] - f(n) = 24 + 6 = 30
[[3,5,8][4,0,2][1,7,6]] - Already visited Node!
Node Chosen for Level 24 - [[3,2,7][8,5,0][1,6,4]]
Generated Nodes:
[[3,2,0][8,5,7][1,6,4]] - f(n) = 24 + 6 = 30
[[3,2,7][8,0,5][1,6,4]] - Already visited Node!
[[3,2,7][8,5,4][1,6,0]] - f(n) = 24 + 6 = 30
Node Chosen for Level 24 - [[7,0,2][1,5,4][6,8,3]]
Generated Nodes:
[[7,2,0][1,5,4][6,8,3]] - f(n) = 24 + 5 = 29
[[0,7,2][1,5,4][6,8,3]] - f(n) = 24 + 6 = 30
[[7,5,2][1,0,4][6,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[8,2,7][3,5,0][6,1,4]]
Generated Nodes:
[[8,2,0][3,5,7][6,1,4]] - f(n) = 24 + 6 = 30
[[8,2,7][3,0,5][6,1,4]] - Already visited Node!
[[8,2,7][3,5,4][6,1,0]] - f(n) = 24 + 6 = 30
```

```
Node Chosen for Level 24 - [[5,6,2][0,1,4][7,8,3]]
Generated Nodes:
[[0,6,2][5,1,4][7,8,3]] - f(n) = 24 + 6 = 30
[[5,6,2][1,0,4][7,8,3]] - f(n) = 24 + 6 = 30
[[5,6,2][7,1,4][0,8,3]] - Already visited Node!
Node Chosen for Level 24 - [[5,3,1][0,6,2][7,8,4]]
Generated Nodes:
[[0,3,1][5,6,2][7,8,4]] - f(n) = 24 + 6 = 30
[[5,3,1][6,0,2][7,8,4]] - f(n) = 24 + 6 = 30
[[5,3,1][7,6,2][0,8,4]] - Already visited Node!
Node Chosen for Level 25 - [[4,2,0][7,5,3][1,8,6]]
Generated Nodes:
[[4,0,2][7,5,3][1,8,6]] - Already visited Node!
[[4,2,3][7,5,0][1,8,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[4,2,3][7,0,5][1,8,6]]
Generated Nodes:
[[4,0,3][7,2,5][1,8,6]] - Already visited Node!
[[4,2,3][7,5,0][1,8,6]] - f(n) = 25 + 4 = 29

[[4,2,3][0,7,5][1,8,6]] - f(n) = 25 + 5 = 30
[[4,2,3][7,8,5][1,0,6]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[8,2,0][4,5,1][3,6,7]]
Generated Nodes:
[[8,0,2][4,5,1][3,6,7]] - Already visited Node!
[[8,2,1][4,5,0][3,6,7]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[4,2,0][7,5,3][1,8,6]]
Generated Nodes:
[[4,0,2][7,5,3][1,8,6]] - Already visited Node!
[[4,2,3][7,5,0][1,8,6]] - f(n) = 25 + 4 = 29
Node Chosen for Level 25 - [[4,2,3][7,0,5][1,8,6]]
Generated Nodes:
[[4,0,3][7,2,5][1,8,6]] - Already visited Node!
```

```
[[4,2,3][7,5,0][1,8,6]] - f(n) = 25 + 4 = 29
[[4,2,3][0,7,5][1,8,6]] - f(n) = 25 + 5 = 30
[[4,2,3][7,8,5][1,0,6]] - f(n) = 25 + 6 = 31
Node Chosen for Level 26 - [[3,0,1][4,5,2][7,8,6]]
Generated Nodes:
[[3,1,0][4,5,2][7,8,6]] - f(n) = 26 + 4 = 30
[[0,3,1][4,5,2][7,8,6]] - f(n) = 26 + 4 = 30
[[3,5,1][4,0,2][7,8,6]] - Already visited Node!
Node Chosen for Level 25 - [[1,7,4][8,5,6][3,2,0]]
Generated Nodes:
[[1,7,4][8,5,0][3,2,6]] - Already visited Node!
[[1,7,4][8,5,6][3,0,2]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[7,2,0][4,5,8][1,3,6]]
Generated Nodes:
[[7,0,2][4,5,8][1,3,6]] - Already visited Node!
[[7,2,8][4,5,0][1,3,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[8,2,0][3,5,6][1,7,4]]
Generated Nodes:
[[8,0,2][3,5,6][1,7,4]] - Already visited Node!
[[8,2,6][3,5,0][1,7,4]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[0,2,8][4,1,5][7,3,6]]
Generated Nodes:
[[2,0,8][4,1,5][7,3,6]] - f(n) = 25 + 6 = 31
[[4,2,8][0,1,5][7,3,6]] - Already visited Node!
Node Chosen for Level 25 - [[4,2,0][7,5,6][8,1,3]]
Generated Nodes:
[[4,0,2][7,5,6][8,1,3]] - Already visited Node!
[[4,2,6][7,5,0][8,1,3]] - f(n) = 25 + 6 = 31
Node Chosen for Level 25 - [[7,2,0][1,5,4][6,8,3]]
Generated Nodes:
[[7,0,2][1,5,4][6,8,3]] - Already visited Node!
```

```
[[7,2,4][1,5,0][6,8,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 27 - [[1,2,0][4,5,6][8,7,3]]
Generated Nodes:
[[1,0,2][4,5,6][8,7,3]] - Already visited Node!
[[1,2,6][4,5,0][8,7,3]] - f(n) = 27 + 4 = 31
Node Chosen for Level 26 - [[4,2,8][0,5,6][7,3,1]]
Generated Nodes:
[[0,2,8][4,5,6][7,3,1]] - f(n) = 26 + 3 = 29
[[4,2,8][5,0,6][7,3,1]] - Already visited Node!
[[4,2,8][7,5,6][0,3,1]] - Already visited Node!
Node Chosen for Level 26 - [[4,2,8][0,5,6][7,3,1]]
Generated Nodes:
[[0,2,8][4,5,6][7,3,1]] - f(n) = 26 + 3 = 29
[[4,2,8][5,0,6][7,3,1]] - Already visited Node!
[[4,2,8][7,5,6][0,3,1]] - Already visited Node!
Node Chosen for Level 27 - [[1,2,0][8,5,6][7,4,3]]
Generated Nodes:
[[1,0,2][8,5,6][7,4,3]] - Already visited Node!
[[1,2,6][8,5,0][7,4,3]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[0,2,8][4,5,6][7,3,1]]
Generated Nodes:
[[2,0,8][4,5,6][7,3,1]] - f(n) = 27 + 4 = 31
[[4,2,8][0,5,6][7,3,1]] - Already visited Node!
Node Chosen for Level 26 - [[5,2,3][0,6,1][7,8,4]]
Generated Nodes:
[[0,2,3][5,6,1][7,8,4]] - f(n) = 26 + 4 = 30
[[5,2,3][6,0,1][7,8,4]] - f(n) = 26 + 4 = 30
[[5,2,3][7,6,1][0,8,4]] - Already visited Node!
Node Chosen for Level 26 - [[5,2,3][0,1,4][7,8,6]]
Generated Nodes:
[[0,2,3][5,1,4][7,8,6]] - f(n) = 26 + 4 = 30
```

```
[[5,2,3][1,0,4][7,8,6]] - f(n) = 26 + 4 = 30
[[5,2,3][7,1,4][0,8,6]] - Already visited Node!
Node Chosen for Level 26 - [[5,2,3][6,1,0][7,8,4]]
Generated Nodes:
[[5,2,0][6,1,3][7,8,4]] - Already visited Node!
[[5,2,3][6,0,1][7,8,4]] - f(n) = 26 + 4 = 30
[[5,2,3][6,1,4][7,8,0]] - f(n) = 26 + 4 = 30
Node Chosen for Level 26 - [[5,2,3][0,6,1][7,8,4]]
Generated Nodes:
[[0,2,3][5,6,1][7,8,4]] - f(n) = 26 + 4 = 30
[[5,2,3][6,0,1][7,8,4]] - f(n) = 26 + 4 = 30
[[5,2,3][7,6,1][0,8,4]] - Already visited Node!
Node Chosen for Level 26 - [[5,2,3][0,1,4][7,8,6]]
Generated Nodes:
[[0,2,3][5,1,4][7,8,6]] - f(n) = 26 + 4 = 30
[[5,2,3][1,0,4][7,8,6]] - f(n) = 26 + 4 = 30
[[5,2,3][7,1,4][0,8,6]] - Already visited Node!
Node Chosen for Level 27 - [[3,2,4][1,5,6][7,8,0]]
Generated Nodes:
[[3,2,4][1,5,0][7,8,6]] - Already visited Node!
[[3,2,4][1,5,6][7,0,8]] - Already visited Node!
Node Chosen for Level 25 - [[4,2,0][1,5,8][7,3,6]]
Generated Nodes:
[[4,0,2][1,5,8][7,3,6]] - Already visited Node!
[[4,2,8][1,5,0][7,3,6]] - f(n) = 25 + 5 = 30
Node Chosen for Level 27 - [[1,2,0][8,5,6][7,4,3]]
Generated Nodes:
[[1,0,2][8,5,6][7,4,3]] - Already visited Node!
[[1,2,6][8,5,0][7,4,3]] - f(n) = 27 + 4 = 31
Node Chosen for Level 26 - [[8,2,1][0,5,6][7,3,4]]
Generated Nodes:
```

```
[[0,2,1][8,5,6][7,3,4]] - f(n) = 26 + 4 = 30
[[8,2,1][5,0,6][7,3,4]] - Already visited Node!
[[8,2,1][7,5,6][0,3,4]] - f(n) = 26 + 5 = 31
Node Chosen for Level 26 - [[1,5,2][0,3,6][7,8,4]]
Generated Nodes:
[[0,5,2][1,3,6][7,8,4]] - f(n) = 26 + 5 = 31
[[1,5,2][3,0,6][7,8,4]] - f(n) = 26 + 4 = 30
[[1,5,2][7,3,6][0,8,4]] - Already visited Node!
Node Chosen for Level 26 - [[8,2,1][0,5,6][7,3,4]]
Generated Nodes:
[[0,2,1][8,5,6][7,3,4]] - f(n) = 26 + 4 = 30
[[8,2,1][5,0,6][7,3,4]] - Already visited Node!
[[8,2,1][7,5,6][0,3,4]] - f(n) = 26 + 5 = 31
Node Chosen for Level 27 - [[1,2,0][8,5,6][7,4,3]]
Generated Nodes:
[[1,0,2][8,5,6][7,4,3]] - Already visited Node!
[[1,2,6][8,5,0][7,4,3]] - f(n) = 27 + 4 = 31
Node Chosen for Level 26 - [[1,2,5][0,3,4][7,8,6]]
Generated Nodes:
[[0,2,5][1,3,4][7,8,6]] - f(n) = 26 + 5 = 31
[[1,2,5][3,0,4][7,8,6]] - f(n) = 26 + 4 = 30
[[1,2,5][7,3,4][0,8,6]] - Already visited Node!
Node Chosen for Level 26 - [[7,2,3][4,5,0][1,6,8]]
Generated Nodes:
[[7,2,0][4,5,3][1,6,8]] - Already visited Node!
[[7,2,3][4,0,5][1,6,8]] - f(n) = 26 + 5 = 31
[[7,2,3][4,5,8][1,6,0]] - f(n) = 26 + 4 = 30
Node Chosen for Level 26 - [[7,2,3][1,5,0][4,8,6]]
Generated Nodes:
[[7,2,0][1,5,3][4,8,6]] - Already visited Node!
[[7,2,3][1,0,5][4,8,6]] - f(n) = 26 + 5 = 31
[[7,2,3][1,5,6][4,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 26 - [[7,2,3][1,5,0][4,8,6]]
```

```
Generated Nodes:
[[7,2,0][1,5,3][4,8,6]] - Already visited Node!
[[7,2,3][1,0,5][4,8,6]] - f(n) = 26 + 5 = 31
[[7,2,3][1,5,6][4,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 25 - [[5,2,3][7,4,6][8,1,0]]
Generated Nodes:
[[5,2,3][7,4,0][8,1,6]] - Already visited Node!
[[5,2,3][7,4,6][8,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 25 - [[5,2,3][7,4,6][8,1,0]]
Generated Nodes:
[[5,2,3][7,4,0][8,1,6]] - Already visited Node!
[[5,2,3][7,4,6][8,0,1]] - f(n) = 25 + 5 = 30
Node Chosen for Level 27 - [[5,2,3][4,8,6][7,1,0]]
Generated Nodes:
[[5,2,3][4,8,0][7,1,6]] - Already visited Node!
[[5,2,3][4,8,6][7,0,1]] - f(n) = 27 + 3 = 30
Node Chosen for Level 25 - [[0,5,2][4,3,1][7,8,6]]
Generated Nodes:
[[5,0,2][4,3,1][7,8,6]] - f(n) = 25 + 5 = 30
[[4,5,2][0,3,1][7,8,6]] - Already visited Node!
Node Chosen for Level 25 - [[7,2,0][1,5,4][6,8,3]]
Generated Nodes:
[[7,0,2][1,5,4][6,8,3]] - Already visited Node!
[[7,2,4][1,5,0][6,8,3]] - f(n) = 25 + 5 = 30
Node Chosen for Level 26 - [[4,2,3][7,5,0][1,8,6]]
Generated Nodes:
[[4,2,0][7,5,3][1,8,6]] - Already visited Node!
[[4,2,3][7,0,5][1,8,6]] - Already visited Node!
[[4,2,3][7,5,6][1,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 26 - [[4,2,3][7,5,0][1,8,6]]
```

```
[[4,2,0][7,5,3][1,8,6]] - Already visited Node!
[[4,2,3][7,0,5][1,8,6]] - Already visited Node!
[[4,2,3][7,5,6][1,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 26 - [[4,2,3][7,5,0][1,8,6]]
Generated Nodes:
[[4,2,0][7,5,3][1,8,6]] - Already visited Node!
[[4,2,3][7,0,5][1,8,6]] - Already visited Node!
[[4,2,3][7,5,6][1,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 26 - [[4,2,3][7,5,0][1,8,6]]
Generated Nodes:
[[4,2,0][7,5,3][1,8,6]] - Already visited Node!
[[4,2,3][7,0,5][1,8,6]] - Already visited Node! [[4,2,3][7,5,6][1,8,0]] - f(n) = 26 + 3 = 29
Node Chosen for Level 27 - [[0,2,8][4,5,6][7,3,1]]
Generated Nodes:
[[2,0,8][4,5,6][7,3,1]] - f(n) = 27 + 4 = 31
[[4,2,8][0,5,6][7,3,1]] - Already visited Node!
Node Chosen for Level 27 - [[0,2,8][4,5,6][7,3,1]]
Generated Nodes:
[[2,0,8][4,5,6][7,3,1]] - f(n) = 27 + 4 = 31
[[4,2,8][0,5,6][7,3,1]] - Already visited Node!
Node Chosen for Level 27 - [[7,2,3][1,5,6][4,8,0]]
Generated Nodes:
[[7,2,3][1,5,0][4,8,6]] - Already visited Node!
[[7,2,3][1,5,6][4,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[7,2,3][1,5,6][4,8,0]]
Generated Nodes:
[[7,2,3][1,5,0][4,8,6]] - Already visited Node!
[[7,2,3][1,5,6][4,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[4,2,3][7,5,6][1,8,0]]
```

Generated Nodes:

```
Generated Nodes:
[[4,2,3][7,5,0][1,8,6]] - Already visited Node!
[[4,2,3][7,5,6][1,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[4,2,3][7,5,6][1,8,0]]
Generated Nodes:
[[4,2,3][7,5,0][1,8,6]] - Already visited Node!
[[4,2,3][7,5,6][1,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[4,2,3][7,5,6][1,8,0]]
Generated Nodes:
[[4,2,3][7,5,0][1,8,6]] - Already visited Node!
[[4,2,3][7,5,6][1,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 27 - [[4,2,3][7,5,6][1,8,0]]
Generated Nodes:
[[4,2,3][7,5,0][1,8,6]] - Already visited Node!
[[4,2,3][7,5,6][1,0,8]] - f(n) = 27 + 4 = 31
Node Chosen for Level 8 - [[2,4,6][7,3,0][5,8,1]]
Generated Nodes:
[[2,4,0][7,3,6][5,8,1]] - Already visited Node!
[[2,4,6][7,0,3][5,8,1]] - f(n) = 8 + 7 = 15
[[2,4,6][7,3,1][5,8,0]] - f(n) = 8 + 7 = 15
Node Chosen for Level 8 - [[2,3,4][7,6,0][5,8,1]]
Generated Nodes:
[[2,3,0][7,6,4][5,8,1]] - f(n) = 8 + 7 = 15
[[2,3,4][7,0,6][5,8,1]] - Already visited Node!
[[2,3,4][7,6,1][5,8,0]] - f(n) = 8 + 7 = 15
Node Chosen for Level 8 - [[2,3,4][7,8,6][5,0,1]]
Generated Nodes:
[[2,3,4][7,0,6][5,8,1]] - Already visited Node!
[[2,3,4][7,8,6][5,1,0]] - f(n) = 8 + 7 = 15
[[2,3,4][7,8,6][0,5,1]] - f(n) = 8 + 7 = 15
Node Chosen for Level 8 - [[7,4,6][3,2,0][5,8,1]]
```

```
Generated Nodes:
[[7,4,0][3,2,6][5,8,1]] - Already visited Node!
[[7,4,6][3,0,2][5,8,1]] - f(n) = 8 + 7 = 15
[[7,4,6][3,2,1][5,8,0]] - f(n) =
                                8 + 7 = 15
Node Chosen for Level 8 - [[7,0,2][3,6,4][5,8,1]]
Generated Nodes:
[[7,2,0][3,6,4][5,8,1]] - Already visited Node!
[[0,7,2][3,6,4][5,8,1]] - f(n) = 8 + 7 = 15
[[7,6,2][3,0,4][5,8,1]] - f(n) = 8 + 7 = 15
Node Chosen for Level 8 - [[7,2,4][3,6,1][5,0,8]]
Generated Nodes:
[[7,2,4][3,0,1][5,6,8]] - f(n) = 8 + 7 = 15
[[7,2,4][3,6,1][5,8,0]] - Already visited Node!
[[7,2,4][3,6,1][0,5,8]] - f(n) = 8 + 7 = 15
Node Chosen for Level 8 - [[7,2,4][3,8,0][5,1,6]]
Generated Nodes:
[[7,2,0][3,8,4][5,1,6]] - Already visited Node!
[[7,2,4][3,0,8][5,1,6]] - f(n) = 8 + 7 = 15
[[7,2,4][3,8,6][5,1,0]] - Already visited Node!
Node Chosen for Level 8 - [[2,0,4][7,8,6][3,5,1]]
```

Generated Nodes :

```
[[2,4,0][7,8,6][3,5,1]] - f(n) = 8 + 7 = 15

[[0,2,4][7,8,6][3,5,1]] - Already visited Node!

[[2,8,4][7,0,6][3,5,1]] - f(n) = 8 + 7 = 15
```

Node Chosen for Level 8 - [[2,0,4][7,6,1][5,8,3]]

Generated Nodes:

```
[[2,4,0][7,6,1][5,8,3]] - f(n) = 8 + 7 = 15

[[0,2,4][7,6,1][5,8,3]] - Already visited Node!

[[2,6,4][7,0,1][5,8,3]] - f(n) = 8 + 7 = 15
```

Node Chosen for Level 8 - [[7,0,4][6,2,1][5,8,3]]

Generated Nodes:

```
[[7,4,0][6,2,1][5,8,3]] - f(n) = 8 + 7 = 15
[[0,7,4][6,2,1][5,8,3]] - f(n) = 8 + 7 = 15
```

```
[[7,2,4][6,0,1][5,8,3]] - Already visited Node!
Node Chosen for Level 8 - [[7,2,4][6,8,1][5,0,3]]
Generated Nodes:
[[7,2,4][6,0,1][5,8,3]] - Already visited Node!
[[7,2,4][6,8,1][5,3,0]] - f(n) = 8 + 7 = 15
[[7,2,4][6,8,1][0,5,3]] - f(n) = 8 + 7 = 15
Node Chosen for Level 8 - [[2,0,4][7,5,3][8,1,6]]
Generated Nodes:
[[2,4,0][7,5,3][8,1,6]] - f(n) = 8 + 7 = 15
[[0,2,4][7,5,3][8,1,6]] - Already visited Node!
[[2,5,4][7,0,3][8,1,6]] - f(n) = 8 + 8 = 16
Node Chosen for Level 9 - [[2,5,4][7,0,3][8,1,6]]
Generated Nodes:
[[2,0,4][7,5,3][8,1,6]] - Already visited Node!
[[2,5,4][7,3,0][8,1,6]] - f(n) = 9 + 8 = 17
[[2,5,4][0,7,3][8,1,6]] - f(n) = 9 + 8 = 17
[[2,5,4][7,1,3][8,0,6]] - f(n) = 9 + 8 = 17
Node Chosen for Level 10 - [[2,5,4][7,3,0][8,1,6]]
Generated Nodes:
[[2,5,0][7,3,4][8,1,6]] - f(n) = 10 + 8 = 18
[[2,5,4][7,0,3][8,1,6]] - Already visited Node!
[[2,5,4][7,3,6][8,1,0]] - Already visited Node!
Node Chosen for Level 10 - [[2,5,4][0,7,3][8,1,6]]
Generated Nodes:
[[0,5,4][2,7,3][8,1,6]] - f(n) = 10 + 8 = 18
[[2,5,4][7,0,3][8,1,6]] - Already visited Node!
[[2,5,4][8,7,3][0,1,6]] - f(n) = 10 + 8 = 18
Node Chosen for Level 10 - [[2,5,4][7,1,3][8,0,6]]
Generated Nodes:
[[2,5,4][7,0,3][8,1,6]] - Already visited Node!
[[2,5,4][7,1,3][8,6,0]] - f(n) = 10 + 8 = 18
[[2,5,4][7,1,3][0,8,6]] - f(n) = 10 + 7 = 17
Node Chosen for Level 11 - [[2,5,4][7,1,3][0,8,6]]
```

```
Generated Nodes:
[[2,5,4][0,1,3][7,8,6]] - f(n) = 11 + 6 = 17
[[2,5,4][7,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 12 - [[2,5,4][0,1,3][7,8,6]]
Generated Nodes:
[[0,5,4][2,1,3][7,8,6]] - f(n) = 12 + 6 = 18
[[2,5,4][1,0,3][7,8,6]] - f(n) = 12 + 6 = 18
[[2,5,4][7,1,3][0,8,6]] - Already visited Node!
Node Chosen for Level 11 - [[2,5,0][7,3,4][8,1,6]]
Generated Nodes:
[[2,0,5][7,3,4][8,1,6]] - f(n) = 11 + 8 = 19
[[2,5,4][7,3,0][8,1,6]] - Already visited Node!
Node Chosen for Level 11 - [[0,5,4][2,7,3][8,1,6]]
Generated Nodes:
[[5,0,4][2,7,3][8,1,6]] - f(n) = 11 + 8 = 19
[[2,5,4][0,7,3][8,1,6]] - Already visited Node!
Node Chosen for Level 11 - [[2,5,4][8,7,3][0,1,6]]
Generated Nodes:
[[2,5,4][0,7,3][8,1,6]] - Already visited Node!
[[2,5,4][8,7,3][1,0,6]] - f(n) = 11 + 8 = 19
Node Chosen for Level 11 - [[2,5,4][7,1,3][8,6,0]]
Generated Nodes:
[[2,5,4][7,1,0][8,6,3]] - f(n) = 11 + 8 = 19
[[2,5,4][7,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 13 - [[0,5,4][2,1,3][7,8,6]]
Generated Nodes:
[[5,0,4][2,1,3][7,8,6]] - f(n) = 13 + 6 = 19
[[2,5,4][0,1,3][7,8,6]] - Already visited Node!
Node Chosen for Level 13 - [[2,5,4][1,0,3][7,8,6]]
```

Generated Nodes:

```
[[2,0,4][1,5,3][7,8,6]] - f(n) = 13 + 5 = 18
[[2,5,4][1,3,0][7,8,6]] - f(n) = 13 + 6 = 19
[[2,5,4][0,1,3][7,8,6]] - Already visited Node!
[[2,5,4][1,8,3][7,0,6]] - f(n) = 13 + 7 = 20
Node Chosen for Level 14 - [[2,0,4][1,5,3][7,8,6]]
Generated Nodes:
[[2,4,0][1,5,3][7,8,6]] - f(n) = 14 + 5 = 19
[[0,2,4][1,5,3][7,8,6]] - Already visited Node!
[[2,5,4][1,0,3][7,8,6]] - Already visited Node!
Node Chosen for Level 12 - [[2,0,5][7,3,4][8,1,6]]
Generated Nodes:
[[2,5,0][7,3,4][8,1,6]] - Already visited Node!
[[0,2,5][7,3,4][8,1,6]] - f(n) = 12 + 7 = 19
[[2,3,5][7,0,4][8,1,6]] - f(n) =
                                12 + 8 = 20
Node Chosen for Level 12 - [[5,0,4][2,7,3][8,1,6]]
Generated Nodes:
[[5,4,0][2,7,3][8,1,6]] - f(n) = 12 + 8 = 20
[[0,5,4][2,7,3][8,1,6]] - Already visited Node!
[[5,7,4][2,0,3][8,1,6]] - f(n) = 12 + 8 = 20
Node Chosen for Level 12 - [[2,5,4][8,7,3][1,0,6]]
Generated Nodes:
[[2,5,4][8,0,3][1,7,6]] - f(n) = 12 + 8 = 20
[[2,5,4][8,7,3][1,6,0]] - f(n) = 12 + 8 = 20
[[2,5,4][8,7,3][0,1,6]] - Already visited Node!
Node Chosen for Level 12 - [[2,5,4][7,1,0][8,6,3]]
Generated Nodes:
[[2,5,0][7,1,4][8,6,3]] - f(n) = 12 + 8 = 20
[[2,5,4][7,0,1][8,6,3]] - f(n) = 12 + 8 = 20
[[2,5,4][7,1,3][8,6,0]] - Already visited Node!
Node Chosen for Level 14 - [[5,0,4][2,1,3][7,8,6]]
Generated Nodes:
[[5,4,0][2,1,3][7,8,6]] - f(n) = 14 + 6 = 20
[[0,5,4][2,1,3][7,8,6]] - Already visited Node!
```

```
[[5,1,4][2,0,3][7,8,6]] - f(n) = 14 + 6 = 20
Node Chosen for Level 14 - [[2,5,4][1,3,0][7,8,6]]
Generated Nodes:
[[2,5,0][1,3,4][7,8,6]] - f(n) = 14 + 6 = 20
[[2,5,4][1,0,3][7,8,6]] - Already visited Node!
[[2,5,4][1,3,6][7,8,0]] - f(n) = 14 + 5 = 19
Node Chosen for Level 15 - [[2,4,0][1,5,3][7,8,6]]
Generated Nodes:
[[2,0,4][1,5,3][7,8,6]] - Already visited Node!
[[2,4,3][1,5,0][7,8,6]] - f(n) = 15 + 4 = 19
Node Chosen for Level 13 - [[0,2,5][7,3,4][8,1,6]]
Generated Nodes:
[[2,0,5][7,3,4][8,1,6]] - Already visited Node!
[[7,2,5][0,3,4][8,1,6]] - f(n) = 13 + 7 = 20
Node Chosen for Level 15 - [[2,5,4][1,3,6][7,8,0]]
Generated Nodes:
[[2,5,4][1,3,0][7,8,6]] - Already visited Node!
[[2,5,4][1,3,6][7,0,8]] - f(n) = 15 + 6 = 21
Node Chosen for Level 16 - [[2,4,3][1,5,0][7,8,6]]
Generated Nodes:
[[2,4,0][1,5,3][7,8,6]] - Already visited Node!
[[2,4,3][1,0,5][7,8,6]] - f(n) = 16 + 5 = 21
[[2,4,3][1,5,6][7,8,0]] - f(n) = 16 + 3 = 19
Node Chosen for Level 17 - [[2,4,3][1,5,6][7,8,0]]
Generated Nodes:
[[2,4,3][1,5,0][7,8,6]] - Already visited Node!
[[2,4,3][1,5,6][7,0,8]] - f(n) = 17 + 4 = 21
Node Chosen for Level 14 - [[2,5,4][1,8,3][7,0,6]]
Generated Nodes:
[[2,5,4][1,0,3][7,8,6]] - Already visited Node!
[[2,5,4][1,8,3][7,6,0]] - f(n) = 14 + 7 = 21
```

```
[[2,5,4][1,8,3][0,7,6]] - f(n) = 14 + 8 = 22
Node Chosen for Level 13 - [[2,3,5][7,0,4][8,1,6]]
Generated Nodes:
[[2,0,5][7,3,4][8,1,6]] - Already visited Node!
[[2,3,5][7,4,0][8,1,6]] - f(n) = 13 + 8 = 21
[[2,3,5][0,7,4][8,1,6]] - f(n) =
                                 13 + 8 = 21
[[2,3,5][7,1,4][8,0,6]] - f(n) = 13 + 8 = 21
Node Chosen for Level 13 - [[5,4,0][2,7,3][8,1,6]]
Generated Nodes:
[[5,0,4][2,7,3][8,1,6]] - Already visited Node!
[[5,4,3][2,7,0][8,1,6]] - f(n) = 13 + 7 = 20
Node Chosen for Level 13 - [[5,7,4][2,0,3][8,1,6]]
Generated Nodes:
[[5,0,4][2,7,3][8,1,6]] - Already visited Node!
[[5,7,4][2,3,0][8,1,6]] - f(n) = 13 + 8 = 21
[[5,7,4][0,2,3][8,1,6]] - f(n) = 13 + 8 = 21
[[5,7,4][2,1,3][8,0,6]] - f(n) = 13 + 8 = 21
Node Chosen for Level 13 - [[2,5,4][8,0,3][1,7,6]]
Generated Nodes:
[[2,0,4][8,5,3][1,7,6]] - f(n) = 13 + 7 = 20
[[2,5,4][8,3,0][1,7,6]] - f(n) = 13 + 8 = 21
[[2,5,4][0,8,3][1,7,6]] - f(n) = 13 + 8 = 21
[[2,5,4][8,7,3][1,0,6]] - Already visited Node!
Node Chosen for Level 13 - [[2,5,4][8,7,3][1,6,0]]
Generated Nodes:
[[2,5,4][8,7,0][1,6,3]] - f(n) = 13 + 8 = 21
[[2,5,4][8,7,3][1,0,6]] - Already visited Node!
Node Chosen for Level 13 - [[2,5,0][7,1,4][8,6,3]]
Generated Nodes:
[[2,0,5][7,1,4][8,6,3]] - f(n) = 13 + 8 = 21
[[2,5,4][7,1,0][8,6,3]] - Already visited Node!
Node Chosen for Level 13 - [[2,5,4][7,0,1][8,6,3]]
```

```
Generated Nodes:
```

[[2,0,4][7,5,1][8,6,3]] - f(n) = 13 + 7 = 20[[2,5,4][7,1,0][8,6,3]] - Already visited Node!

[[2,5,4][0,7,1][8,6,3]] - f(n) = 13 + 8 = 21[[2,5,4][7,6,1][8,0,3]] - f(n) =13 + 8 = 21

Node Chosen for Level 15 - [[5,4,0][2,1,3][7,8,6]]

Generated Nodes:

[[5,0,4][2,1,3][7,8,6]] - Already visited Node! [[5,4,3][2,1,0][7,8,6]] - f(n) = 15 + 5 = 20

Node Chosen for Level 15 - [[5,1,4][2,0,3][7,8,6]]

Generated Nodes:

[[5,0,4][2,1,3][7,8,6]] - Already visited Node! [[5,1,4][2,3,0][7,8,6]] - f(n) = 15 + 6 = 21

[[5,1,4][0,2,3][7,8,6]] - f(n) =15 + 6 = 21

[[5,1,4][2,8,3][7,0,6]] - f(n) =15 + 7 = 22

Node Chosen for Level 15 - [[2,5,0][1,3,4][7,8,6]]

Generated Nodes:

[[2,0,5][1,3,4][7,8,6]] - f(n) = 15 + 6 = 21[[2,5,4][1,3,0][7,8,6]] - Already visited Node!

Node Chosen for Level 14 - [[7,2,5][0,3,4][8,1,6]]

Generated Nodes:

[[0,2,5][7,3,4][8,1,6]] - Already visited Node! [[7,2,5][3,0,4][8,1,6]] - f(n) = 14 + 7 = 21[[7,2,5][8,3,4][0,1,6]] - f(n) = 14 + 7 = 21

Node Chosen for Level 14 - [[5,4,3][2,7,0][8,1,6]]

Generated Nodes:

[[5,4,0][2,7,3][8,1,6]] - Already visited Node!

[[5,4,3][2,0,7][8,1,6]] - f(n) = 14 + 7 = 21

[[5,4,3][2,7,6][8,1,0]] - f(n) = 14 + 6 = 20

Node Chosen for Level 14 - [[2,0,4][8,5,3][1,7,6]]

Generated Nodes:

[[2,4,0][8,5,3][1,7,6]] - f(n) = 14 + 7 = 21[[0,2,4][8,5,3][1,7,6]] - f(n) = 14 + 6 = 20

```
[[2,5,4][8,0,3][1,7,6]] - Already visited Node!
Node Chosen for Level 14 - [[2,0,4][7,5,1][8,6,3]]
Generated Nodes:
[[2,4,0][7,5,1][8,6,3]] - f(n) = 14 + 7 = 21
[[0,2,4][7,5,1][8,6,3]] - Already visited Node!
[[2,5,4][7,0,1][8,6,3]] - Already visited Node!
Node Chosen for Level 16 - [[5,4,3][2,1,0][7,8,6]]
Generated Nodes:
[[5,4,0][2,1,3][7,8,6]] - Already visited Node!
[[5,4,3][2,0,1][7,8,6]] - f(n) = 16 + 5 = 21
[[5,4,3][2,1,6][7,8,0]] - f(n) = 16 + 4 = 20
Node Chosen for Level 15 - [[5,4,3][2,7,6][8,1,0]]
Generated Nodes:
[[5,4,3][2,7,0][8,1,6]] - Already visited Node!
[[5,4,3][2,7,6][8,0,1]] - f(n) = 15 + 6 = 21
Node Chosen for Level 15 - [[0,2,4][8,5,3][1,7,6]]
Generated Nodes:
[[2,0,4][8,5,3][1,7,6]] - Already visited Node!
[[8,2,4][0,5,3][1,7,6]] - Already visited Node!
Node Chosen for Level 17 - [[5,4,3][2,1,6][7,8,0]]
Generated Nodes:
[[5,4,3][2,1,0][7,8,6]] - Already visited Node!
[[5,4,3][2,1,6][7,0,8]] - f(n) = 17 + 5 = 22
Node Chosen for Level 16 - [[2,5,4][1,3,6][7,0,8]]
Generated Nodes:
[[2,5,4][1,0,6][7,3,8]] - f(n) = 16 + 6 = 22
[[2,5,4][1,3,6][7,8,0]] - Already visited Node!
[[2,5,4][1,3,6][0,7,8]] - f(n) = 16 + 7 = 23
Node Chosen for Level 17 - [[2,4,3][1,0,5][7,8,6]]
Generated Nodes:
[[2,0,3][1,4,5][7,8,6]] - f(n) = 17 + 5 = 22
```

```
[[2,4,3][1,5,0][7,8,6]] - Already visited Node!
[[2,4,3][0,1,5][7,8,6]] - f(n) = 17 + 5 = 22
[[2,4,3][1,8,5][7,0,6]] - f(n) = 17 + 6 = 23
Node Chosen for Level 18 - [[2,4,3][1,5,6][7,0,8]]
Generated Nodes:
[[2,4,3][1,0,6][7,5,8]] - f(n) = 18 + 5 = 23
[[2,4,3][1,5,6][7,8,0]] - Already visited Node!
[[2,4,3][1,5,6][0,7,8]] - f(n) = 18 + 5 = 23
Node Chosen for Level 15 - [[2,5,4][1,8,3][7,6,0]]
Generated Nodes:
[[2,5,4][1,8,0][7,6,3]] - f(n) = 15 + 7 = 22
[[2,5,4][1,8,3][7,0,6]] - Already visited Node!
Node Chosen for Level 14 - [[2,3,5][7,4,0][8,1,6]]
Generated Nodes:
[[2,3,0][7,4,5][8,1,6]] - f(n) = 14 + 8 = 22
[[2,3,5][7,0,4][8,1,6]] - Already visited Node!
[[2,3,5][7,4,6][8,1,0]] - f(n) = 14 + 7 = 21
Node Chosen for Level 14 - [[2,3,5][0,7,4][8,1,6]]
Generated Nodes:
[[0,3,5][2,7,4][8,1,6]] - f(n) = 14 + 8 = 22
[[2,3,5][7,0,4][8,1,6]] - Already visited Node!
[[2,3,5][8,7,4][0,1,6]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[2,3,5][7,1,4][8,0,6]]
Generated Nodes:
[[2,3,5][7,0,4][8,1,6]] - Already visited Node!
[[2,3,5][7,1,4][8,6,0]] - f(n) = 14 + 8 = 22
[[2,3,5][7,1,4][0,8,6]] - f(n) = 14 + 7 = 21
Node Chosen for Level 14 - [[5,7,4][2,3,0][8,1,6]]
Generated Nodes:
[[5,7,0][2,3,4][8,1,6]] - f(n) = 14 + 8 = 22
[[5,7,4][2,0,3][8,1,6]] - Already visited Node!
[[5,7,4][2,3,6][8,1,0]] - Already visited Node!
Node Chosen for Level 14 - [[5,7,4][0,2,3][8,1,6]]
```

```
Generated Nodes:
```

[[0,7,4][5,2,3][8,1,6]] - f(n) = 14 + 8 = 22

[[5,7,4][2,0,3][8,1,6]] - Already visited Node! [[5,7,4][8,2,3][0,1,6]] - f(n) = 14 + 8 = 22

Node Chosen for Level 14 - [[5,7,4][2,1,3][8,0,6]]

Generated Nodes:

[[5,7,4][2,0,3][8,1,6]] - Already visited Node!

$$[[5,7,4][2,1,3][8,6,0]] - f(n) = 14 + 8 = 22$$

[[5,7,4][2,1,3][0,8,6]] - f(n) = 14 + 7 = 21

Node Chosen for Level 14 - [[2,5,4][8,3,0][1,7,6]]

Generated Nodes:

```
[[2,5,0][8,3,4][1,7,6]] - f(n) = 14 + 8 = 22
[[2,5,4][8,0,3][1,7,6]] - Already visited Node!
[[2,5,4][8,3,6][1,7,0]] - f(n) = 14 + 7 = 21
```

Node Chosen for Level 14 - [[2,5,4][0,8,3][1,7,6]]

Generated Nodes:

[[0,5,4][2,8,3][1,7,6]] - f(n) = 14 + 8 = 22

[[2,5,4][8,0,3][1,7,6]] - Already visited Node!

[[2,5,4][1,8,3][0,7,6]] - f(n) = 14 + 8 = 22

Node Chosen for Level 14 - [[2,5,4][8,7,0][1,6,3]]

Generated Nodes:

[[2,5,0][8,7,4][1,6,3]] - f(n) = 14 + 8 = 22

[[2,5,4][8,0,7][1,6,3]] - f(n) = 14 + 8 = 22

[[2,5,4][8,7,3][1,6,0]] - Already visited Node!

Node Chosen for Level 14 - [[2,0,5][7,1,4][8,6,3]]

Generated Nodes:

[[2,5,0][7,1,4][8,6,3]] - Already visited Node!

[[0,2,5][7,1,4][8,6,3]] - f(n) = 14 + 7 = 21

[[2,1,5][7,0,4][8,6,3]] - f(n) = 14 + 8 = 22

Node Chosen for Level 14 - [[2,5,4][0,7,1][8,6,3]]

Generated Nodes:

[[0,5,4][2,7,1][8,6,3]] - f(n) = 14 + 8 = 22

```
[[2,5,4][7,0,1][8,6,3]] - Already visited Node!
[[2,5,4][8,7,1][0,6,3]] - f(n) = 14 + 8 = 22
Node Chosen for Level 14 - [[2,5,4][7,6,1][8,0,3]]
Generated Nodes:
[[2,5,4][7,0,1][8,6,3]] - Already visited Node!
[[2,5,4][7,6,1][8,3,0]] - f(n) = 14 + 8 = 22
[[2,5,4][7,6,1][0,8,3]] - f(n) = 14 + 7 = 21
Node Chosen for Level 16 - [[5,1,4][2,3,0][7,8,6]]
Generated Nodes:
[[5,1,0][2,3,4][7,8,6]] - f(n) = 16 + 6 = 22
[[5,1,4][2,0,3][7,8,6]] - Already visited Node!
[[5,1,4][2,3,6][7,8,0]] - f(n) = 16 + 5 = 21
Node Chosen for Level 16 - [[5,1,4][0,2,3][7,8,6]]
Generated Nodes:
[[0,1,4][5,2,3][7,8,6]] - f(n) = 16 + 6 = 22
[[5,1,4][2,0,3][7,8,6]] - Already visited Node!
[[5,1,4][7,2,3][0,8,6]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[2,0,5][1,3,4][7,8,6]]
Generated Nodes:
[[2,5,0][1,3,4][7,8,6]] - Already visited Node!
[[0,2,5][1,3,4][7,8,6]] - f(n) = 16 + 5 = 21
[[2,3,5][1,0,4][7,8,6]] - f(n) =
                                  16 + 6 = 22
Node Chosen for Level 15 - [[7,2,5][3,0,4][8,1,6]]
Generated Nodes:
[[7,0,5][3,2,4][8,1,6]] - f(n) = 15 + 8 = 23
[[7,2,5][3,4,0][8,1,6]] - f(n) =
                                  15 + 7 = 22
[[7,2,5][0,3,4][8,1,6]] - Already visited Node!
[[7,2,5][3,1,4][8,0,6]] - f(n) =
                                  15 + 7 = 22
Node Chosen for Level 15 - [[7,2,5][8,3,4][0,1,6]]
Generated Nodes:
[[7,2,5][0,3,4][8,1,6]] - Already visited Node!
[[7,2,5][8,3,4][1,0,6]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[5,4,3][2,0,7][8,1,6]]
```

```
Generated Nodes:
```

[[5,0,3][2,4,7][8,1,6]] - f(n) = 15 + 7 = 22

[[5,4,3][2,7,0][8,1,6]] - Already visited Node!

[[5,4,3][0,2,7][8,1,6]] - f(n) = 15 + 7 = 22

[[5,4,3][2,1,7][8,0,6]] - f(n) = 15 + 7 = 22

Node Chosen for Level 15 - [[2,4,0][8,5,3][1,7,6]]

Generated Nodes:

[[2,0,4][8,5,3][1,7,6]] - Already visited Node!

[[2,4,3][8,5,0][1,7,6]] - f(n) = 15 + 6 = 21

Node Chosen for Level 15 - [[2,4,0][7,5,1][8,6,3]]

Generated Nodes:

[[2,0,4][7,5,1][8,6,3]] - Already visited Node! [[2,4,1][7,5,0][8,6,3]] - f(n) = 15 + 7 = 22

Node Chosen for Level 17 - [[5,4,3][2,0,1][7,8,6]]

Generated Nodes:

[[5,0,3][2,4,1][7,8,6]] - f(n) = 17 + 5 = 22

[[5,4,3][2,1,0][7,8,6]] - Already visited Node!

[[5,4,3][0,2,1][7,8,6]] - f(n) = 17 + 5 = 22

[[5,4,3][2,8,1][7,0,6]] - f(n) = 17 + 6 = 23

Node Chosen for Level 16 - [[5,4,3][2,7,6][8,0,1]]

Generated Nodes:

[[5,4,3][2,0,6][8,7,1]] - f(n) = 16 + 6 = 22

[[5,4,3][2,7,6][8,1,0]] - Already visited Node!

[[5,4,3][2,7,6][0,8,1]] - f(n) = 16 + 5 = 21

Node Chosen for Level 15 - [[2,3,5][7,4,6][8,1,0]]

Generated Nodes:

[[2,3,5][7,4,0][8,1,6]] - Already visited Node!

[[2,3,5][7,4,6][8,0,1]] - f(n) = 15 + 7 = 22

Node Chosen for Level 15 - [[2,3,5][7,1,4][0,8,6]]

Generated Nodes:

[[2,3,5][0,1,4][7,8,6]] - f(n) = 15 + 6 = 21[[2,3,5][7,1,4][8,0,6]] - Already visited Node!

```
Node Chosen for Level 15 - [[5,7,4][2,1,3][0,8,6]]
Generated Nodes:
[[5,7,4][0,1,3][2,8,6]] - f(n) = 15 + 7 = 22
[[5,7,4][2,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 15 - [[2,5,4][8,3,6][1,7,0]]
Generated Nodes:
[[2,5,4][8,3,0][1,7,6]] - Already visited Node!
[[2,5,4][8,3,6][1,0,7]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[0,2,5][7,1,4][8,6,3]]
Generated Nodes:
[[2,0,5][7,1,4][8,6,3]] - Already visited Node!
[[7,2,5][0,1,4][8,6,3]] - f(n) = 15 + 7 = 22
Node Chosen for Level 15 - [[2,5,4][7,6,1][0,8,3]]
Generated Nodes:
[[2,5,4][0,6,1][7,8,3]] - f(n) = 15 + 6 = 21
[[2,5,4][7,6,1][8,0,3]] - Already visited Node!
Node Chosen for Level 17 - [[5,1,4][2,3,6][7,8,0]]
Generated Nodes:
[[5,1,4][2,3,0][7,8,6]] - Already visited Node!
[[5,1,4][2,3,6][7,0,8]] - f(n) = 17 + 6 = 23
Node Chosen for Level 17 - [[0,2,5][1,3,4][7,8,6]]
Generated Nodes:
[[2,0,5][1,3,4][7,8,6]] - Already visited Node!
[[1,2,5][0,3,4][7,8,6]] - Already visited Node!
Node Chosen for Level 16 - [[2,4,3][8,5,0][1,7,6]]
Generated Nodes:
[[2,4,0][8,5,3][1,7,6]] - Already visited Node!
[[2,4,3][8,0,5][1,7,6]] - f(n) = 16 + 7 = 23
[[2,4,3][8,5,6][1,7,0]] - f(n) = 16 + 5 = 21
Node Chosen for Level 17 - [[5,4,3][2,7,6][0,8,1]]
```

```
Generated Nodes:
[[5,4,3][0,7,6][2,8,1]] - f(n) = 17 + 5 = 22
[[5,4,3][2,7,6][8,0,1]] - Already visited Node!
Node Chosen for Level 16 - [[2,3,5][0,1,4][7,8,6]]
Generated Nodes:
[[0,3,5][2,1,4][7,8,6]] - f(n) = 16 + 6 = 22
[[2,3,5][1,0,4][7,8,6]] - f(n) = 16 + 6 = 22
[[2,3,5][7,1,4][0,8,6]] - Already visited Node!
Node Chosen for Level 16 - [[2,5,4][0,6,1][7,8,3]]
Generated Nodes:
[[0,5,4][2,6,1][7,8,3]] - f(n) = 16 + 6 = 22
[[2,5,4][6,0,1][7,8,3]] - f(n) = 16 + 6 = 22

[[2,5,4][7,6,1][0,8,3]] - Already visited Node!
Node Chosen for Level 17 - [[2,4,3][8,5,6][1,7,0]]
Generated Nodes:
[[2,4,3][8,5,0][1,7,6]] - Already visited Node!
[[2,4,3][8,5,6][1,0,7]] - f(n) = 17 + 5 = 22
Node Chosen for Level 15 - [[2,5,4][1,8,3][0,7,6]]
Generated Nodes:
[[2,5,4][0,8,3][1,7,6]] - Already visited Node!
[[2,5,4][1,8,3][7,0,6]] - Already visited Node!
Node Chosen for Level 16 - [[5,1,4][2,8,3][7,0,6]]
Generated Nodes:
[[5,1,4][2,0,3][7,8,6]] - Already visited Node!
[[5,1,4][2,8,3][7,6,0]] - f(n) = 16 + 7 = 23
[[5,1,4][2,8,3][0,7,6]] - f(n) =
                                   16 + 8 = 24
Node Chosen for Level 18 - [[5,4,3][2,1,6][7,0,8]]
Generated Nodes:
[[5,4,3][2,0,6][7,1,8]] - f(n) = 18 + 5 = 23
[[5,4,3][2,1,6][7,8,0]] - Already visited Node!
[[5,4,3][2,1,6][0,7,8]] - f(n) = 18 + 6 = 24
```

```
Node Chosen for Level 17 - [[2,5,4][1,0,6][7,3,8]]
Generated Nodes:
[[2,0,4][1,5,6][7,3,8]] - f(n) = 17 + 5 = 22
[[2,5,4][1,6,0][7,3,8]] - f(n) = 17 + 7 = 24
[[2,5,4][0,1,6][7,3,8]] - f(n) = 17 + 6 = 23
[[2,5,4][1,3,6][7,0,8]] - Already visited Node!
Node Chosen for Level 18 - [[2,0,3][1,4,5][7,8,6]]
Generated Nodes:
[[2,3,0][1,4,5][7,8,6]] - f(n) = 18 + 6 = 24
[[0,2,3][1,4,5][7,8,6]] - f(n) = 18 + 4 = 22
[[2,4,3][1,0,5][7,8,6]] - Already visited Node!
Node Chosen for Level 18 - [[2,4,3][0,1,5][7,8,6]]
Generated Nodes:
[[0,4,3][2,1,5][7,8,6]] - f(n) = 18 + 5 = 23
[[2,4,3][1,0,5][7,8,6]] - Already visited Node!
[[2,4,3][7,1,5][0,8,6]] - f(n) = 18 + 6 = 24
Node Chosen for Level 16 - [[2,5,4][1,8,0][7,6,3]]
Generated Nodes:
[[2,5,0][1,8,4][7,6,3]] - f(n) = 16 + 7 = 23
[[2,5,4][1,0,8][7,6,3]] - f(n) = 16 + 7 = 23
[[2,5,4][1,8,3][7,6,0]] - Already visited Node!
Node Chosen for Level 15 - [[2,3,0][7,4,5][8,1,6]]
Generated Nodes:
[[2,0,3][7,4,5][8,1,6]] - f(n) = 15 + 7 = 22
[[2,3,5][7,4,0][8,1,6]] - Already visited Node!
Node Chosen for Level 15 - [[0,3,5][2,7,4][8,1,6]]
Generated Nodes:
[[3,0,5][2,7,4][8,1,6]] - f(n) = 15 + 8 = 23
[[2,3,5][0,7,4][8,1,6]] - Already visited Node!
Node Chosen for Level 15 - [[2,3,5][8,7,4][0,1,6]]
Generated Nodes:
```

[[2,3,5][0,7,4][8,1,6]] - Already visited Node!

```
[[2,3,5][8,7,4][1,0,6]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[2,3,5][7,1,4][8,6,0]]
Generated Nodes:
[[2,3,5][7,1,0][8,6,4]] - f(n) = 15 + 8 = 23
[[2,3,5][7,1,4][8,0,6]] - Already visited Node!
Node Chosen for Level 15 - [[5,7,0][2,3,4][8,1,6]]
Generated Nodes:
[[5,0,7][2,3,4][8,1,6]] - f(n) = 15 + 8 = 23
[[5,7,4][2,3,0][8,1,6]] - Already visited Node!
Node Chosen for Level 15 - [[0,7,4][5,2,3][8,1,6]]
Generated Nodes:
[[7,0,4][5,2,3][8,1,6]] - Already visited Node!
[[5,7,4][0,2,3][8,1,6]] - Already visited Node!
Node Chosen for Level 15 - [[5,7,4][8,2,3][0,1,6]]
Generated Nodes:
[[5,7,4][0,2,3][8,1,6]] - Already visited Node!
[[5,7,4][8,2,3][1,0,6]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[5,7,4][2,1,3][8,6,0]]
Generated Nodes:
[[5,7,4][2,1,0][8,6,3]] - f(n) = 15 + 8 = 23
[[5,7,4][2,1,3][8,0,6]] - Already visited Node!
Node Chosen for Level 15 - [[2,5,0][8,3,4][1,7,6]]
Generated Nodes:
[[2,0,5][8,3,4][1,7,6]] - f(n) = 15 + 8 = 23
[[2,5,4][8,3,0][1,7,6]] - Already visited Node!
Node Chosen for Level 15 - [[0,5,4][2,8,3][1,7,6]]
Generated Nodes:
[[5,0,4][2,8,3][1,7,6]] - f(n) = 15 + 8 = 23
[[2,5,4][0,8,3][1,7,6]] - Already visited Node!
Node Chosen for Level 15 - [[2,5,4][1,8,3][0,7,6]]
```

```
Generated Nodes:
[[2,5,4][0,8,3][1,7,6]] - Already visited Node!
[[2,5,4][1,8,3][7,0,6]] - Already visited Node!
Node Chosen for Level 15 - [[2,5,0][8,7,4][1,6,3]]
Generated Nodes:
[[2,0,5][8,7,4][1,6,3]] - f(n) = 15 + 8 = 23
[[2,5,4][8,7,0][1,6,3]] - Already visited Node!
Node Chosen for Level 15 - [[2,5,4][8,0,7][1,6,3]]
Generated Nodes:
[[2,0,4][8,5,7][1,6,3]] - f(n) = 15 + 7 = 22
[[2,5,4][8,7,0][1,6,3]] - Already visited Node!
[[2,5,4][0,8,7][1,6,3]] - f(n) = 15 + 8 = 23
[[2,5,4][8,6,7][1,0,3]] - f(n) =
                                 15 + 8 = 23
Node Chosen for Level 15 - [[2,1,5][7,0,4][8,6,3]]
Generated Nodes:
[[2,0,5][7,1,4][8,6,3]] - Already visited Node!
[[2,1,5][7,4,0][8,6,3]] - f(n) = 15 + 8 = 23
[[2,1,5][0,7,4][8,6,3]] - f(n) = 15 + 8 = 23
[[2,1,5][7,6,4][8,0,3]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[0,5,4][2,7,1][8,6,3]]
Generated Nodes:
[[5,0,4][2,7,1][8,6,3]] - f(n) = 15 + 8 = 23
[[2,5,4][0,7,1][8,6,3]] - Already visited Node!
Node Chosen for Level 15 - [[2,5,4][8,7,1][0,6,3]]
Generated Nodes:
[[2,5,4][0,7,1][8,6,3]] - Already visited Node!
[[2,5,4][8,7,1][6,0,3]] - f(n) = 15 + 8 = 23
Node Chosen for Level 15 - [[2,5,4][7,6,1][8,3,0]]
Generated Nodes:
[[2,5,4][7,6,0][8,3,1]] - Already visited Node!
[[2,5,4][7,6,1][8,0,3]] - Already visited Node!
```

```
Node Chosen for Level 17 - [[5,1,0][2,3,4][7,8,6]]
Generated Nodes:
[[5,0,1][2,3,4][7,8,6]] - f(n) = 17 + 6 = 23
[[5,1,4][2,3,0][7,8,6]] - Already visited Node!
Node Chosen for Level 17 - [[0,1,4][5,2,3][7,8,6]]
Generated Nodes:
[[1,0,4][5,2,3][7,8,6]] - Already visited Node!
[[5,1,4][0,2,3][7,8,6]] - Already visited Node!
Node Chosen for Level 17 - [[2,3,5][1,0,4][7,8,6]]
Generated Nodes:
[[2,0,5][1,3,4][7,8,6]] - Already visited Node!
[[2,3,5][1,4,0][7,8,6]] - f(n) = 17 + 6 = 23
[[2,3,5][0,1,4][7,8,6]] - Already visited Node!
[[2,3,5][1,8,4][7,0,6]] - f(n) = 17 + 7 = 24
Node Chosen for Level 16 - [[7,2,5][3,4,0][8,1,6]]
Generated Nodes:
[[7,2,0][3,4,5][8,1,6]] - f(n) = 16 + 7 = 23
[[7,2,5][3,0,4][8,1,6]] - Already visited Node!
[[7,2,5][3,4,6][8,1,0]] - f(n) = 16 + 6 = 22
Node Chosen for Level 16 - [[7,2,5][3,1,4][8,0,6]]
Generated Nodes:
[[7,2,5][3,0,4][8,1,6]] - Already visited Node!
[[7,2,5][3,1,4][8,6,0]] - f(n) = 16 + 7 = 23
[[7,2,5][3,1,4][0,8,6]] - f(n) = 16 + 6 = 22
Node Chosen for Level 16 - [[7,2,5][8,3,4][1,0,6]]
Generated Nodes:
[[7,2,5][8,0,4][1,3,6]] - f(n) = 16 + 7 = 23
[[7,2,5][8,3,4][1,6,0]] - f(n) = 16 + 7 = 23
[[7,2,5][8,3,4][0,1,6]] - Already visited Node!
Node Chosen for Level 16 - [[5,0,3][2,4,7][8,1,6]]
Generated Nodes:
[[5,3,0][2,4,7][8,1,6]] - f(n) = 16 + 8 = 24
```

```
[[0,5,3][2,4,7][8,1,6]] - f(n) = 16 + 7 = 23
[[5,4,3][2,0,7][8,1,6]] - Already visited Node!
Node Chosen for Level 16 - [[5,4,3][0,2,7][8,1,6]]
Generated Nodes:
[[0,4,3][5,2,7][8,1,6]] - f(n) = 16 + 7 = 23
[[5,4,3][2,0,7][8,1,6]] - Already visited Node!
[[5,4,3][8,2,7][0,1,6]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[5,4,3][2,1,7][8,0,6]]
Generated Nodes:
[[5,4,3][2,0,7][8,1,6]] - Already visited Node!
[[5,4,3][2,1,7][8,6,0]] - f(n) = 16 + 7 = 23
[[5,4,3][2,1,7][0,8,6]] - f(n) =
                                  16 + 6 = 22
Node Chosen for Level 16 - [[2,4,1][7,5,0][8,6,3]]
Generated Nodes:
[[2,4,0][7,5,1][8,6,3]] - Already visited Node!
[[2,4,1][7,0,5][8,6,3]] - f(n) = 16 + 8 = 24
[[2,4,1][7,5,3][8,6,0]] - f(n) =
                                  16 + 7 = 23
Node Chosen for Level 18 - [[5,0,3][2,4,1][7,8,6]]
Generated Nodes:
[[5,3,0][2,4,1][7,8,6]] - f(n) = 18 + 6 = 24
[[0,5,3][2,4,1][7,8,6]] - f(n) = 18 + 5 = 23
[[5,4,3][2,0,1][7,8,6]] - Already visited Node!
Node Chosen for Level 18 - [[5,4,3][0,2,1][7,8,6]]
Generated Nodes:
[[0,4,3][5,2,1][7,8,6]] - f(n) = 18 + 5 = 23
[[5,4,3][2,0,1][7,8,6]] - Already visited Node!
[[5,4,3][7,2,1][0,8,6]] - f(n) = 18 + 6 = 24
Node Chosen for Level 17 - [[5,4,3][2,0,6][8,7,1]]
Generated Nodes:
[[5,0,3][2,4,6][8,7,1]] - f(n) = 17 + 6 = 23
[[5,4,3][2,6,0][8,7,1]] - f(n) = 17 + 7 = 24
[[5,4,3][0,2,6][8,7,1]] - f(n) = 17 + 6 = 23
[[5,4,3][2,7,6][8,0,1]] - Already visited Node!
```

```
Node Chosen for Level 16 - [[2,3,5][7,4,6][8,0,1]]
Generated Nodes:
[[2,3,5][7,0,6][8,4,1]] - f(n) = 16 + 7 = 23
[[2,3,5][7,4,6][8,1,0]] - Already visited Node!
[[2,3,5][7,4,6][0,8,1]] - f(n) = 16 + 6 = 22
Node Chosen for Level 16 - [[5,7,4][0,1,3][2,8,6]]
Generated Nodes:
[[0,7,4][5,1,3][2,8,6]] - f(n) = 16 + 7 = 23
[[5,7,4][1,0,3][2,8,6]] - f(n) = 16 + 7 = 23
[[5,7,4][2,1,3][0,8,6]] - Already visited Node!
Node Chosen for Level 16 - [[2,5,4][8,3,6][1,0,7]]
Generated Nodes:
[[2,5,4][8,0,6][1,3,7]] - f(n) = 16 + 7 = 23
[[2,5,4][8,3,6][1,7,0]] - Already visited Node!
[[2,5,4][8,3,6][0,1,7]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[7,2,5][0,1,4][8,6,3]]
Generated Nodes:
[[0,2,5][7,1,4][8,6,3]] - Already visited Node!
[[7,2,5][1,0,4][8,6,3]] - f(n) = 16 + 7 = 23
                                  16 + 7 = 23
[[7,2,5][8,1,4][0,6,3]] - f(n) =
Node Chosen for Level 18 - [[5,4,3][0,7,6][2,8,1]]
Generated Nodes:
[[0,4,3][5,7,6][2,8,1]] - f(n) = 18 + 5 = 23
[[5,4,3][7,0,6][2,8,1]] - f(n) = 18 + 5 = 23
[[5,4,3][2,7,6][0,8,1]] - Already visited Node!
Node Chosen for Level 17 - [[0,3,5][2,1,4][7,8,6]]
Generated Nodes:
[[3,0,5][2,1,4][7,8,6]] - f(n) = 17 + 6 = 23
[[2,3,5][0,1,4][7,8,6]] - Already visited Node!
Node Chosen for Level 17 - [[2,3,5][1,0,4][7,8,6]]
Generated Nodes:
```

[[2,0,5][1,3,4][7,8,6]] - Already visited Node!

```
[[2,3,5][1,4,0][7,8,6]] - f(n) = 17 + 6 = 23
[[2,3,5][0,1,4][7,8,6]] - Already visited Node!
[[2,3,5][1,8,4][7,0,6]] - f(n) = 17 + 7 = 24
Node Chosen for Level 17 - [[0,5,4][2,6,1][7,8,3]]
Generated Nodes:
[[5,0,4][2,6,1][7,8,3]] - f(n) = 17 + 6 = 23
[[2,5,4][0,6,1][7,8,3]] - Already visited Node!
Node Chosen for Level 17 - [[2,5,4][6,0,1][7,8,3]]
Generated Nodes:
[[2,0,4][6,5,1][7,8,3]] - f(n) = 17 + 5 = 22
[[2,5,4][6,1,0][7,8,3]] - f(n) = 17 + 6 = 23
[[2,5,4][0,6,1][7,8,3]] - Already visited Node!
[[2,5,4][6,8,1][7,0,3]] - f(n) = 17 + 7 = 24
Node Chosen for Level 18 - [[2,4,3][8,5,6][1,0,7]]
Generated Nodes:
[[2,4,3][8,0,6][1,5,7]] - f(n) = 18 + 6 = 24
[[2,4,3][8,5,6][1,7,0]] - Already visited Node!
[[2,4,3][8,5,6][0,1,7]] - f(n) = 18 + 5 = 23
Node Chosen for Level 18 - [[2,0,4][1,5,6][7,3,8]]
Generated Nodes:
[[2,4,0][1,5,6][7,3,8]] - f(n) = 18 + 5 = 23
[[0,2,4][1,5,6][7,3,8]] - f(n) = 18 + 4 = 22
[[2,5,4][1,0,6][7,3,8]] - Already visited Node!
Node Chosen for Level 19 - [[0,2,3][1,4,5][7,8,6]]
Generated Nodes:
[[2,0,3][1,4,5][7,8,6]] - Already visited Node!
[[1,2,3][0,4,5][7,8,6]] - f(n) = 19 + 3 = 22
Node Chosen for Level 16 - [[2,0,3][7,4,5][8,1,6]]
Generated Nodes:
[[2,3,0][7,4,5][8,1,6]] - Already visited Node!
[[0,2,3][7,4,5][8,1,6]] - f(n) = 16 + 6 = 22
[[2,4,3][7,0,5][8,1,6]] - f(n) = 16 + 7 = 23
Node Chosen for Level 16 - [[2,0,4][8,5,7][1,6,3]]
```

```
Generated Nodes:
[[2,4,0][8,5,7][1,6,3]] - f(n) = 16 + 7 = 23
[[0,2,4][8,5,7][1,6,3]] - f(n) = 16 + 6 = 22
[[2,5,4][8,0,7][1,6,3]] - Already visited Node!
Node Chosen for Level 17 - [[7,2,5][3,4,6][8,1,0]]
Generated Nodes:
[[7,2,5][3,4,0][8,1,6]] - Already visited Node!
[[7,2,5][3,4,6][8,0,1]] - f(n) = 17 + 6 = 23
Node Chosen for Level 17 - [[7,2,5][3,1,4][0,8,6]]
Generated Nodes:
[[7,2,5][0,1,4][3,8,6]] - f(n) = 17 + 6 = 23
[[7,2,5][3,1,4][8,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[5,4,3][2,1,7][0,8,6]]
Generated Nodes:
[[5,4,3][0,1,7][2,8,6]] - f(n) = 17 + 6 = 23
[[5,4,3][2,1,7][8,0,6]] - Already visited Node!
Node Chosen for Level 17 - [[2,3,5][7,4,6][0,8,1]]
Generated Nodes:
[[2,3,5][0,4,6][7,8,1]] - f(n) = 17 + 5 = 22
[[2,3,5][7,4,6][8,0,1]] - Already visited Node!
Node Chosen for Level 18 - [[2,0,4][6,5,1][7,8,3]]
Generated Nodes:
[[2,4,0][6,5,1][7,8,3]] - f(n) = 18 + 5 = 23
[[0,2,4][6,5,1][7,8,3]] - f(n) = 18 + 4 = 22
[[2,5,4][6,0,1][7,8,3]] - Already visited Node!
Node Chosen for Level 19 - [[0,2,4][1,5,6][7,3,8]]
Generated Nodes:
[[2,0,4][1,5,6][7,3,8]] - Already visited Node!
[[1,2,4][0,5,6][7,3,8]] - Already visited Node!
Node Chosen for Level 20 - [[1,2,3][0,4,5][7,8,6]]
```

```
Generated Nodes:
[[0,2,3][1,4,5][7,8,6]] - Already visited Node!
[[1,2,3][4,0,5][7,8,6]] - f(n) = 20 + 2 = 22
[[1,2,3][7,4,5][0,8,6]] - f(n) = 20 + 4 = 24
Node Chosen for Level 17 - [[0,2,3][7,4,5][8,1,6]]
Generated Nodes:
[[2,0,3][7,4,5][8,1,6]] - Already visited Node!
[[7,2,3][0,4,5][8,1,6]] - Already visited Node!
Node Chosen for Level 17 - [[0,2,4][8,5,7][1,6,3]]
Generated Nodes:
[[2,0,4][8,5,7][1,6,3]] - Already visited Node!
[[8,2,4][0,5,7][1,6,3]] - f(n) = 17 + 6 = 23
Node Chosen for Level 18 - [[2,3,5][0,4,6][7,8,1]]
Generated Nodes:
[[0,3,5][2,4,6][7,8,1]] - f(n) = 18 + 5 = 23
[[2,3,5][4,0,6][7,8,1]] - f(n) = 18 + 4 = 22
[[2,3,5][7,4,6][0,8,1]] - Already visited Node!
Node Chosen for Level 19 - [[0,2,4][6,5,1][7,8,3]]
Generated Nodes:
[[2,0,4][6,5,1][7,8,3]] - Already visited Node!
[[6,2,4][0,5,1][7,8,3]] - f(n) = 19 + 4 = 23
Node Chosen for Level 21 - [[1,2,3][4,0,5][7,8,6]]
Generated Nodes:
[[1,0,3][4,2,5][7,8,6]] - f(n) = 21 + 3 = 24
[[1,2,3][4,5,0][7,8,6]] - f(n) = 21 + 1 = 22
[[1,2,3][0,4,5][7,8,6]] - Already visited Node!
[[1,2,3][4,8,5][7,0,6]] - f(n) = 21 + 3 = 24
Node Chosen for Level 19 - [[2,3,5][4,0,6][7,8,1]]
Generated Nodes:
[[2,0,5][4,3,6][7,8,1]] - Already visited Node!
[[2,3,5][4,6,0][7,8,1]] - f(n) = 19 + 5 = 24
[[2,3,5][0,4,6][7,8,1]] - Already visited Node!
```

[[2,3,5][4,8,6][7,0,1]] - f(n) = 19 + 5 = 24

Node Chosen for Level 22 - [[1,2,3][4,5,0][7,8,6]] Generated Nodes: [[1,2,0][4,5,3][7,8,6]] - f(n) =22 + 2 = 24[[1,2,3][4,0,5][7,8,6]] - Already visited Node! [[1,2,3][4,5,6][7,8,0]] - f(n) =22 + 0 = 22Node Chosen for Level 23 - [[1,2,3][4,5,6][7,8,0]] The goal path found... [[7,2,4][5,0,6][8,3,1]][[7,2,4][0,5,6][8,3,1]][[7,2,4][5,3,6][8,0,1]][[0,2,4][7,5,6][8,3,1]][[7,2,4][8,5,6][0,3,1]][[7,2,4][5,3,6][0,8,1]][[7,0,4][5,2,6][8,3,1]][[7,2,4][5,6,0][8,3,1]][[7,2,4][5,3,6][8,1,0]][[7,2,4][8,5,6][3,0,1]][[7,2,4][0,3,6][5,8,1]][[2,0,4][7,5,6][8,3,1]][[7,4,0][5,2,6][8,3,1]][[0,7,4][5,2,6][8,3,1]][[7,2,0][5,6,4][8,3,1]][[7,2,4][5,6,1][8,3,0]][[7,2,4][8,5,6][3,1,0]][[0,2,4][7,3,6][5,8,1]][[7,2,4][3,0,6][5,8,1]][[7,2,4][5,3,0][8,1,6]][[7,2,4][8,0,6][3,5,1]][[2,4,0][7,5,6][8,3,1]][[5,7,4][0,2,6][8,3,1]][[7,2,4][5,6,1][8,0,3]][[7,2,4][5,6,1][0,8,3]][[2,5,4][7,0,6][8,3,1]][[7,4,6][5,2,0][8,3,1]][[7,0,2][5,6,4][8,3,1]][[7,2,4][8,5,0][3,1,6]][[2,0,4][7,3,6][5,8,1]][[7,0,4][3,2,6][5,8,1]][[7,2,4][3,6,0][5,8,1]][[7,2,4][3,8,6][5,0,1]][[7,2,0][5,3,4][8,1,6]][[7,2,4][5,0,3][8,1,6]][[7,2,4][0,8,6][3,5,1]][[5,7,4][2,0,6][8,3,1]]

[[5,7,4][8,2,6][0,3,1]] [[7,2,4][5,0,1][8,6,3]] [[7,2,4][0,6,1][5,8,3]]

```
[[7,2,4][0,5,3][8,1,6]]
[[7,2,4][0,5,1][8,6,3]]
[[7,0,4][8,2,6][3,5,1]]
[[7,2,4][8,6,0][3,5,1]]
[[2,4,6][7,5,0][8,3,1]]
[[2,5,4][0,7,6][8,3,1]]
[[2,5,4][7,3,6][8,0,1]]
[[7,4,6][5,0,2][8,3,1]]
[[7,4,6][5,2,1][8,3,0]]
[[0,7,2][5,6,4][8,3,1]]
[[7,6,2][5,0,4][8,3,1]]
[[7,2,0][8,5,4][3,1,6]]
[[2,4,0][7,3,6][5,8,1]]
[[2,3,4][7,0,6][5,8,1]]
[[7,4,0][3,2,6][5,8,1]]
[[0,7,4][3,2,6][5,8,1]]
[[7,2,0][3,6,4][5,8,1]]
[[7,2,4][3,6,1][5,8,0]]
[[7,2,4][3,8,6][5,1,0]]
[[7,2,4][3,8,6][0,5,1]]
[[7,2,4][5,1,3][8,0,6]]
[[0,2,4][7,8,6][3,5,1]]
[[7,2,4][3,8,6][0,5,1]]
[[5,0,4][2,7,6][8,3,1]]
[[5,7,4][2,3,6][8,0,1]]
[[5,7,4][8,2,6][3,0,1]]
[[7,2,4][5,1,0][8,6,3]]
[[0,2,4][7,6,1][5,8,3]]
[[7,2,4][6,0,1][5,8,3]]
[[0,2,4][7,5,3][8,1,6]]
[[7,2,4][8,5,3][0,1,6]]
[[0,2,4][7,5,1][8,6,3]]
[[7,2,4][8,5,1][0,6,3]]
[[2,5,4][7,3,6][0,8,1]]
[[7,4,6][0,5,2][8,3,1]]
[[7,6,2][0,5,4][8,3,1]]
[[7,2,4][5,1,3][0,8,6]]
[[5,7,4][2,3,6][0,8,1]]
[[2,5,4][0,3,6][7,8,1]]
[[2,5,4][7,6,0][8,3,1]]
[[7,2,4][8,0,5][3,1,6]]
[[7,0,2][5,3,4][8,1,6]]
[[7,0,4][5,2,3][8,1,6]]
[[5,7,4][2,6,0][8,3,1]]
[[7,0,4][5,2,1][8,6,3]]
[[7,4,0][8,2,6][3,5,1]]
[[0,7,4][8,2,6][3,5,1]]
[[7,2,0][8,6,4][3,5,1]]
[[7,2,4][8,6,1][3,5,0]]
[[2,4,6][7,5,1][8,3,0]]
[[0,5,4][2,7,6][8,3,1]]
[[2,5,4][8,7,6][0,3,1]]
```

```
[[2,5,4][7,3,6][8,1,0]]
[[7,0,6][5,4,2][8,3,1]]
[[7,4,6][5,3,2][8,0,1]]
[[7,4,6][5,2,1][8,0,3]]
[[5,7,2][0,6,4][8,3,1]]
[[7,6,2][5,4,0][8,3,1]]
[[7,6,2][5,3,4][8,0,1]]
[[2,3,4][0,7,6][5,8,1]]
[[3,7,4][0,2,6][5,8,1]]
[[7,2,4][5,1,3][8,6,0]]
[[5,4,0][2,7,6][8,3,1]]
[[0,5,4][2,7,6][8,3,1]]
[[5,7,4][2,3,6][8,1,0]]
[[5,7,4][8,0,6][3,2,1]]
[[5,7,4][8,2,6][3,1,0]]
[[7,2,0][5,1,4][8,6,3]]
[[7,2,4][5,1,3][8,6,0]]
[[7,2,4][6,1,0][5,8,3]]
[[7,2,4][8,5,3][1,0,6]]
[[7,2,4][8,5,1][6,0,3]]
[[0,4,6][7,5,2][8,3,1]]
[[7,4,6][8,5,2][0,3,1]]
[[0,6,2][7,5,4][8,3,1]]
[[7,6,2][8,5,4][0,3,1]]
[[7,2,4][0,1,3][5,8,6]]
[[5,7,4][0,3,6][2,8,1]]
[[0,5,4][2,3,6][7,8,1]]
[[2,5,4][3,0,6][7,8,1]]
[[7,4,6][5,3,2][0,8,1]]
[[7,4,6][5,2,1][0,8,3]]
[[7,6,2][5,3,4][0,8,1]]
[[2,0,4][3,5,6][7,8,1]]
[[0,2,4][3,5,6][7,8,1]]
[[2,4,6][7,0,5][8,3,1]]
[[7,0,2][8,5,4][3,1,6]]
[[7,5,2][8,0,4][3,1,6]]
[[7,5,2][8,4,0][3,1,6]]
[[7,5,2][0,8,4][3,1,6]]
[[7,5,2][8,1,4][3,0,6]]
[[7,5,2][8,4,6][3,1,0]]
[[7,5,0][8,4,2][3,1,6]]
[[0,5,2][7,8,4][3,1,6]]
[[7,5,2][3,8,4][0,1,6]]
[[7,5,2][8,1,4][3,6,0]]
[[7,5,2][8,1,4][0,3,6]]
[[7,5,2][8,4,6][3,0,1]]
[[7,0,5][8,4,2][3,1,6]]
[[5,0,2][7,8,4][3,1,6]]
[[7,5,2][3,8,4][1,0,6]]
[[7,5,2][8,1,0][3,6,4]]
[[7,5,2][0,1,4][8,3,6]]
[[7,5,2][8,0,6][3,4,1]]
```

```
[[7,5,2][8,4,6][0,3,1]]
[[5,2,0][7,8,4][3,1,6]]
[[7,5,2][3,0,4][1,8,6]]
[[7,0,2][8,5,6][3,4,1]]
[[7,0,2][3,5,4][1,8,6]]
[[7,2,0][8,5,6][3,4,1]]
[[7,2,0][3,5,4][1,8,6]]
[[0,7,5][8,4,2][3,1,6]]
[[7,4,5][8,0,2][3,1,6]]
[[5,8,2][7,0,4][3,1,6]]
[[7,5,2][3,8,4][1,6,0]]
[[7,5,0][8,1,2][3,6,4]]
[[7,5,2][8,0,1][3,6,4]]
[[0,5,2][7,1,4][8,3,6]]
[[7,5,2][1,0,4][8,3,6]]
[[7,5,2][0,8,6][3,4,1]]
[[7,5,2][0,4,6][8,3,1]]
[[5,2,4][7,8,0][3,1,6]]
[[7,5,2][3,4,0][1,8,6]]
[[7,5,2][0,3,4][1,8,6]]
[[0,7,2][8,5,6][3,4,1]]
[[0,7,2][3,5,4][1,8,6]]
[[7,2,4][3,5,0][1,8,6]]
[[7,0,2][8,5,1][3,6,4]]
[[7,0,2][1,5,4][8,3,6]]
[[7,5,2][4,0,6][8,3,1]]
[[5,2,4][7,8,6][3,1,0]]
[[7,5,2][3,4,6][1,8,0]]
[[7,2,4][3,5,6][1,8,0]]
[[7,2,0][8,5,1][3,6,4]]
[[7,2,0][1,5,4][8,3,6]]
[[7,0,2][4,5,6][8,3,1]]
[[7,2,0][4,5,6][8,3,1]]
[[7,5,2][8,6,0][3,4,1]]
[[7,2,6][8,5,0][3,4,1]]
[[8,7,5][0,4,2][3,1,6]]
[[7,4,5][8,2,0][3,1,6]]
[[7,4,5][0,8,2][3,1,6]]
[[7,4,5][8,1,2][3,0,6]]
[[5,8,2][7,4,0][3,1,6]]
[[5,8,2][0,7,4][3,1,6]]
[[5,8,2][7,1,4][3,0,6]]
[[7,5,2][3,8,0][1,6,4]]
[[7,0,5][8,1,2][3,6,4]]
[[7,5,2][0,8,1][3,6,4]]
[[7,5,2][8,6,1][3,0,4]]
[[5,0,2][7,1,4][8,3,6]]
[[7,5,2][1,4,0][8,3,6]]
[[7,5,2][1,3,4][8,0,6]]
[[0,5,2][7,8,6][3,4,1]]
[[7,5,2][3,8,6][0,4,1]]
[[0,5,2][7,4,6][8,3,1]]
```

```
[[5,2,4][7,0,8][3,1,6]]
[[7,5,0][3,4,2][1,8,6]]
[[0,5,2][7,3,4][1,8,6]]
[[7,5,2][1,3,4][0,8,6]]
[[8,7,2][0,5,6][3,4,1]]
[[3,7,2][0,5,4][1,8,6]]
[[0,7,2][8,5,1][3,6,4]]
[[0,7,2][1,5,4][8,3,6]]
[[7,5,2][4,3,6][8,0,1]]
[[5,2,4][7,8,6][3,0,1]]
[[7,2,1][8,5,0][3,6,4]]
[[7,2,4][1,5,0][8,3,6]]
[[0,7,2][4,5,6][8,3,1]]
[[8,7,5][4,0,2][3,1,6]]
[[7,4,5][8,2,6][3,1,0]]
[[5,8,2][7,4,6][3,1,0]]
[[5,2,0][7,1,4][8,3,6]]
[[7,5,2][1,4,6][8,3,0]]
[[7,5,2][1,3,4][0,8,6]]
[[1,7,2][0,5,4][8,3,6]]
[[7,5,2][4,3,6][0,8,1]]
[[5,2,4][7,0,6][3,8,1]]
[[7,2,4][1,5,6][8,3,0]]
[[7,2,4][3,0,5][1,8,6]]
[[7,5,2][4,6,0][8,3,1]]
[[7,5,2][3,4,6][1,0,8]]
[[7,2,4][3,5,6][1,0,8]]
[[7,2,6][4,5,0][8,3,1]]
[[7,5,0][8,6,2][3,4,1]]
[[7,5,2][8,6,1][3,4,0]]
[[7,2,6][8,5,1][3,4,0]]
[[8,7,5][3,4,2][0,1,6]]
[[7,4,0][8,2,5][3,1,6]]
[[0,4,5][7,8,2][3,1,6]]
[[7,4,5][3,8,2][0,1,6]]
[[7,4,5][8,1,2][3,6,0]]
[[7,4,5][8,1,2][0,3,6]]
[[5,8,0][7,4,2][3,1,6]]
[[0,8,2][5,7,4][3,1,6]]
[[5,8,2][3,7,4][0,1,6]]
[[5,8,2][7,1,4][3,6,0]]
[[5,8,2][7,1,4][0,3,6]]
[[7,5,0][3,8,2][1,6,4]]
[[7,5,2][3,0,8][1,6,4]]
[[0,7,5][8,1,2][3,6,4]]
[[7,1,5][8,0,2][3,6,4]]
[[0,5,2][7,8,1][3,6,4]]
[[7,5,2][3,8,1][0,6,4]]
[[7,5,2][8,6,1][3,4,0]]
[[7,5,2][8,6,1][0,3,4]]
[[5,1,2][7,0,4][8,3,6]]
[[7,5,0][1,4,2][8,3,6]]
```

```
[[7,5,2][1,3,4][8,6,0]]
[[5,0,2][7,8,6][3,4,1]]
[[7,5,2][3,8,6][4,0,1]]
[[5,0,2][7,4,6][8,3,1]]
[[5,2,4][0,7,8][3,1,6]]
[[5,2,4][7,1,8][3,0,6]]
[[7,0,5][3,4,2][1,8,6]]
[[5,0,2][7,3,4][1,8,6]]
[[8,7,2][3,5,6][0,4,1]]
[[3,7,2][1,5,4][0,8,6]]
[[8,7,2][0,5,1][3,6,4]]
[[7,5,2][4,3,6][8,1,0]]
[[5,2,4][7,8,6][0,3,1]]
[[7,2,1][8,5,4][3,6,0]]
[[8,0,5][4,7,2][3,1,6]]
[[8,7,5][4,2,0][3,1,6]]
[[8,7,5][4,1,2][3,0,6]]
[[7,4,5][8,2,6][3,0,1]]
[[5,8,2][7,4,6][3,0,1]]
[[5,2,4][7,1,0][8,3,6]]
[[7,5,2][1,4,6][8,0,3]]
[[1,7,2][8,5,4][0,3,6]]
[[5,2,4][0,7,6][3,8,1]]
[[7,2,4][1,5,6][8,0,3]]
[[5,8,2][0,1,4][7,3,6]]
[[7,0,2][3,5,8][1,6,4]]
[[5,2,0][7,8,6][3,4,1]]
[[7,5,2][3,0,6][4,8,1]]
[[5,2,0][7,4,6][8,3,1]]
[[5,2,0][7,3,4][1,8,6]]
[[5,2,4][0,8,6][7,3,1]]
[[8,7,5][4,2,6][3,1,0]]
[[5,2,4][7,1,6][8,3,0]]
[[7,5,2][1,4,6][0,8,3]]
[[7,2,4][1,5,6][0,8,3]]
[[7,2,0][3,5,8][1,6,4]]
[[7,0,2][3,5,6][4,8,1]]
[[7,2,0][3,5,6][4,8,1]]
[[7,2,6][8,0,5][3,4,1]]
[[5,0,4][7,2,8][3,1,6]]
[[8,7,2][5,0,6][3,4,1]]
[[3,7,2][5,0,4][1,8,6]]
[[7,2,1][8,0,5][3,6,4]]
[[7,2,4][1,0,5][8,3,6]]
[[4,7,2][0,5,6][8,3,1]]
[[1,7,2][5,0,4][8,3,6]]
[[7,5,2][0,3,6][4,8,1]]
[[5,0,4][7,2,6][3,8,1]]
[[5,2,4][7,6,0][3,8,1]]
[[7,2,4][0,3,5][1,8,6]]
[[7,5,0][4,6,2][8,3,1]]
[[7,5,2][4,6,1][8,3,0]]
```

```
[[7,5,2][3,0,6][1,4,8]]
[[7,5,2][3,4,6][0,1,8]]
[[7,2,4][3,5,6][0,1,8]]
[[7,2,6][4,5,1][8,3,0]]
[[7,0,5][8,6,2][3,4,1]]
[[7,2,6][8,5,1][3,0,4]]
[[8,7,5][3,4,2][1,0,6]]
[[7,0,4][8,2,5][3,1,6]]
[[4,0,5][7,8,2][3,1,6]]
[[7,4,5][3,8,2][1,0,6]]
[[7,4,5][8,1,0][3,6,2]]
[[7,4,5][0,1,2][8,3,6]]
[[5,0,8][7,4,2][3,1,6]]
[[8,0,2][5,7,4][3,1,6]]
[[5,8,2][3,7,4][1,0,6]]
[[5,8,2][7,1,0][3,6,4]]
[[7,0,5][3,8,2][1,6,4]]
[[7,5,2][0,3,8][1,6,4]]
[[7,5,2][3,6,8][1,0,4]]
[[8,7,5][0,1,2][3,6,4]]
[[7,1,5][8,2,0][3,6,4]]
[[7,1,5][0,8,2][3,6,4]]
[[7,1,5][8,6,2][3,0,4]]
[[5,0,2][7,8,1][3,6,4]]
[[7,5,2][3,8,1][6,0,4]]
[[7,5,2][0,6,1][8,3,4]]
[[5,1,2][7,4,0][8,3,6]]
[[5,1,2][0,7,4][8,3,6]]
[[5,1,2][7,3,4][8,0,6]]
[[7,0,5][1,4,2][8,3,6]]
[[7,5,2][1,3,0][8,6,4]]
[[5,8,2][7,0,6][3,4,1]]
[[7,5,2][3,8,6][4,1,0]]
[[5,4,2][7,0,6][8,3,1]]
[[0,2,4][5,7,8][3,1,6]]
[[5,2,4][3,7,8][0,1,6]]
[[5,2,4][7,1,8][3,6,0]]
[[5,2,4][7,1,8][0,3,6]]
[[0,7,5][3,4,2][1,8,6]]
[[7,4,5][3,0,2][1,8,6]]
[[5,3,2][7,0,4][1,8,6]]
[[8,7,2][3,5,6][4,0,1]]
[[8,7,2][3,5,1][0,6,4]]
[[7,2,1][8,5,4][3,0,6]]
[[8,5,0][4,7,2][3,1,6]]
[[0,8,5][4,7,2][3,1,6]]
[[8,7,0][4,2,5][3,1,6]]
[[8,7,5][4,1,2][3,6,0]]
[[8,7,5][4,1,2][0,3,6]]
[[7,4,5][8,0,6][3,2,1]]
[[7,4,5][8,2,6][0,3,1]]
[[5,8,2][7,0,6][3,4,1]]
```

```
[[5,8,2][7,4,6][0,3,1]]
[[5,2,4][7,0,1][8,3,6]]
[[7,5,2][1,0,6][8,4,3]]
[[1,7,2][8,5,4][3,0,6]]
[[0,2,4][5,7,6][3,8,1]]
[[5,2,4][3,7,6][0,8,1]]
[[0,8,2][5,1,4][7,3,6]]
[[5,8,2][1,0,4][7,3,6]]
[[0,7,2][3,5,8][1,6,4]]
[[7,5,2][0,3,6][4,8,1]]
[[5,2,4][7,3,0][1,8,6]]
[[0,2,4][5,8,6][7,3,1]]
[[5,2,4][8,0,6][7,3,1]]
[[8,7,5][4,2,6][3,0,1]]
[[5,2,4][7,1,6][8,0,3]]
[[7,5,2][0,4,6][1,8,3]]
[[7,2,4][0,5,6][1,8,3]]
[[7,2,8][3,5,0][1,6,4]]
[[0,7,2][3,5,6][4,8,1]]
[[7,0,2][3,5,6][1,4,8]]
[[7,4,5][3,0,2][1,8,6]]
[[8,2,0][5,7,4][3,1,6]]
[[5,2,0][7,8,1][3,6,4]]
[[7,5,2][3,0,1][6,8,4]]
[[5,1,2][7,4,6][8,3,0]]
[[5,1,2][7,3,4][0,8,6]]
[[5,2,4][0,1,8][7,3,6]]
[[5,8,2][0,4,6][7,3,1]]
[[7,0,2][1,5,6][8,4,3]]
[[5,2,4][7,3,6][1,8,0]]
[[5,2,4][7,1,6][0,8,3]]
[[7,5,2][4,0,6][1,8,3]]
[[7,2,0][3,5,6][1,4,8]]
[[7,0,2][3,5,1][6,8,4]]
[[5,1,2][0,3,4][7,8,6]]
[[5,8,2][4,0,6][7,3,1]]
[[7,2,0][1,5,6][8,4,3]]
[[5,2,4][0,1,6][7,8,3]]
[[7,0,2][4,5,6][1,8,3]]
[[7,2,0][3,5,1][6,8,4]]
[[7,2,0][4,5,6][1,8,3]]
[[7,0,4][3,2,5][1,8,6]]
[[7,2,4][3,8,5][1,0,6]]
[[7,2,4][3,0,6][1,5,8]]
[[7,2,6][4,0,5][8,3,1]]
[[3,7,2][1,5,4][8,0,6]]
[[8,7,2][5,0,1][3,6,4]]
[[7,5,2][4,3,0][8,1,6]]
[[7,2,4][1,0,6][8,5,3]]
[[5,2,6][7,8,0][3,4,1]]
[[7,5,2][3,6,0][4,8,1]]
[[5,2,6][7,4,0][8,3,1]]
```

```
[[7,2,6][3,5,0][4,8,1]]
[[7,2,6][0,8,5][3,4,1]]
[[7,2,6][8,4,5][3,0,1]]
[[5,4,0][7,2,8][3,1,6]]
[[0,5,4][7,2,8][3,1,6]]
[[8,0,2][5,7,6][3,4,1]]
[[8,7,2][5,4,6][3,0,1]]
[[3,0,2][5,7,4][1,8,6]]
[[3,7,2][5,4,0][1,8,6]]
[[7,2,1][0,8,5][3,6,4]]
[[7,2,1][8,6,5][3,0,4]]
[[7,2,4][0,1,5][8,3,6]]
[[7,2,4][1,3,5][8,0,6]]
[[4,7,2][8,5,6][0,3,1]]
[[1,0,2][5,7,4][8,3,6]]
[[1,7,2][5,4,0][8,3,6]]
[[1,7,2][5,3,4][8,0,6]]
[[0,5,2][7,3,6][4,8,1]]
[[5,4,0][7,2,6][3,8,1]]
[[0,5,4][7,2,6][3,8,1]]
[[5,2,0][7,6,4][3,8,1]]
[[5,2,4][7,6,1][3,8,0]]
[[0,2,4][7,3,5][1,8,6]]
[[7,2,4][1,3,5][0,8,6]]
[[7,0,5][4,6,2][8,3,1]]
[[7,5,2][4,6,1][8,0,3]]
[[7,5,2][0,3,6][1,4,8]]
[[7,5,2][0,4,6][3,1,8]]
[[7,2,4][0,5,6][3,1,8]]
[[7,2,6][4,5,1][8,0,3]]
[[0,7,5][8,6,2][3,4,1]]
[[7,6,5][8,0,2][3,4,1]]
[[7,2,6][8,5,1][0,3,4]]
[[8,7,5][3,0,2][1,4,6]]
[[8,7,5][3,4,2][1,6,0]]
[[0,7,4][8,2,5][3,1,6]]
[[4,5,0][7,8,2][3,1,6]]
[[4,8,5][7,0,2][3,1,6]]
[[7,4,5][3,8,2][1,6,0]]
[[7,4,0][8,1,5][3,6,2]]
[[7,4,5][8,0,1][3,6,2]]
[[0,4,5][7,1,2][8,3,6]]
[[7,4,5][1,0,2][8,3,6]]
[[0,5,8][7,4,2][3,1,6]]
[[5,4,8][7,0,2][3,1,6]]
[[8,7,2][5,0,4][3,1,6]]
[[5,8,2][3,0,4][1,7,6]]
[[5,8,2][3,7,4][1,6,0]]
[[5,8,0][7,1,2][3,6,4]]
[[5,8,2][7,0,1][3,6,4]]
[[0,7,5][3,8,2][1,6,4]]
[[7,8,5][3,0,2][1,6,4]]
```

```
[[0,5,2][7,3,8][1,6,4]]
[[7,5,2][1,3,8][0,6,4]]
[[7,5,2][3,6,8][1,4,0]]
[[7,5,2][3,6,8][0,1,4]]
[[8,7,5][1,0,2][3,6,4]]
[[8,7,5][3,1,2][0,6,4]]
[[7,1,0][8,2,5][3,6,4]]
[[7,1,5][8,2,4][3,6,0]]
[[0,1,5][7,8,2][3,6,4]]
[[7,1,5][3,8,2][0,6,4]]
[[7,1,5][8,6,2][3,4,0]]
[[7,1,5][8,6,2][0,3,4]]
[[5,8,2][7,0,1][3,6,4]]
[[7,5,2][3,8,1][6,4,0]]
[[0,5,2][7,6,1][8,3,4]]
[[7,5,2][6,0,1][8,3,4]]
[[5,1,0][7,4,2][8,3,6]]
[[0,1,2][5,7,4][8,3,6]]
[[5,1,2][8,7,4][0,3,6]]
[[5,1,2][7,3,4][8,6,0]]
[[0,7,5][1,4,2][8,3,6]]
[[7,4,5][1,0,2][8,3,6]]
[[7,5,0][1,3,2][8,6,4]]
[[7,5,2][1,0,3][8,6,4]]
[[5,8,2][0,7,6][3,4,1]]
[[5,4,2][0,7,6][8,3,1]]
[[5,4,2][7,3,6][8,0,1]]
[[5,2,4][3,7,8][1,0,6]]
[[5,2,4][7,1,0][3,6,8]]
[[3,7,5][0,4,2][1,8,6]]
[[7,4,5][3,2,0][1,8,6]]
[[7,4,5][0,3,2][1,8,6]]
[[5,3,2][7,4,0][1,8,6]]
[[5,3,2][0,7,4][1,8,6]]
[[8,7,2][3,5,6][4,1,0]]
[[8,7,2][3,5,1][6,0,4]]
[[7,2,1][8,5,4][0,3,6]]
[[8,5,2][4,7,0][3,1,6]]
[[8,0,7][4,2,5][3,1,6]]
[[8,7,5][4,1,0][3,6,2]]
[[7,0,5][8,4,6][3,2,1]]
[[7,4,5][0,8,6][3,2,1]]
[[7,4,5][0,2,6][8,3,1]]
[[5,8,2][0,7,6][3,4,1]]
[[5,2,4][0,7,1][8,3,6]]
[[5,2,4][7,3,1][8,0,6]]
[[7,5,2][0,1,6][8,4,3]]
[[1,7,2][8,5,4][3,6,0]]
[[8,0,2][5,1,4][7,3,6]]
[[5,0,2][1,8,4][7,3,6]]
[[5,8,2][1,4,0][7,3,6]]
[[5,8,2][1,3,4][7,0,6]]
```

```
[[3,7,2][0,5,8][1,6,4]]
[[0,5,2][7,3,6][4,8,1]]
[[5,2,4][7,0,3][1,8,6]]
[[5,2,4][8,3,6][7,0,1]]
[[8,7,5][4,0,6][3,2,1]]
[[8,7,5][4,2,6][0,3,1]]
[[5,2,4][7,0,6][8,1,3]]
[[0,5,2][7,4,6][1,8,3]]
[[0,2,4][7,5,6][1,8,3]]
[[7,2,8][3,5,4][1,6,0]]
[[3,7,2][0,5,6][4,8,1]]
[[0,7,2][3,5,6][1,4,8]]
[[7,4,5][3,2,0][1,8,6]]
[[7,4,5][0,3,2][1,8,6]]
[[8,2,4][5,7,0][3,1,6]]
[[5,2,1][7,8,0][3,6,4]]
[[7,5,2][3,1,0][6,8,4]]
[[7,5,2][0,3,1][6,8,4]]
[[5,1,2][7,4,6][8,0,3]]
[[0,2,4][5,1,8][7,3,6]]
[[5,2,4][1,0,8][7,3,6]]
[[0,8,2][5,4,6][7,3,1]]
[[0,7,2][1,5,6][8,4,3]]
[[0,7,2][3,5,1][6,8,4]]
[[0,1,2][5,3,4][7,8,6]]
[[5,1,2][3,0,4][7,8,6]]
[[5,0,2][4,8,6][7,3,1]]
[[5,8,2][4,3,6][7,0,1]]
[[0,2,4][5,1,6][7,8,3]]
[[5,2,4][1,0,6][7,8,3]]
[[0,7,2][4,5,6][1,8,3]]
[[7,2,1][3,5,0][6,8,4]]
[[8,2,0][5,7,6][3,4,1]]
[[3,2,0][5,7,4][1,8,6]]
[[3,7,2][5,4,6][1,8,0]]
[[7,2,4][1,3,5][0,8,6]]
[[1,2,0][5,7,4][8,3,6]]
[[1,7,2][5,4,6][8,3,0]]
[[1,7,2][5,3,4][0,8,6]]
[[7,5,2][4,6,1][0,8,3]]
[[7,5,2][4,0,6][3,1,8]]
[[7,2,6][4,5,1][0,8,3]]
[[8,7,2][0,5,4][3,1,6]]
[[1,0,5][7,8,2][3,6,4]]
[[7,0,2][6,5,1][8,3,4]]
[[1,7,5][0,4,2][8,3,6]]
[[7,0,2][1,5,3][8,6,4]]
[[5,4,2][7,3,6][0,8,1]]
[[3,7,5][4,0,2][1,8,6]]
[[7,4,5][3,2,6][1,8,0]]
[[5,3,2][7,4,6][1,8,0]]
[[8,5,2][4,7,6][3,1,0]]
```

```
[[8,2,7][4,0,5][3,1,6]]
[[5,2,4][7,3,1][0,8,6]]
[[8,2,0][5,1,4][7,3,6]]
[[5,2,0][1,8,4][7,3,6]]
[[5,8,2][1,4,6][7,3,0]]
[[3,7,2][4,5,6][0,8,1]]
[[7,4,5][3,2,6][1,8,0]]
[[8,2,4][5,7,6][3,1,0]]
[[5,1,2][7,4,6][0,8,3]]
[[1,7,2][0,5,6][8,4,3]]
[[1,0,2][5,3,4][7,8,6]]
[[5,2,0][4,8,6][7,3,1]]
[[7,0,2][4,5,6][3,1,8]]
[[7,2,0][6,5,1][8,3,4]]
[[1,7,5][4,0,2][8,3,6]]
[[7,2,0][1,5,3][8,6,4]]
[[5,4,2][0,3,6][7,8,1]]
[[8,2,7][4,5,0][3,1,6]]
[[5,2,4][0,3,1][7,8,6]]
[[5,1,2][0,4,6][7,8,3]]
[[1,2,0][5,3,4][7,8,6]]
[[7,2,0][4,5,6][3,1,8]]
[[7,2,3][1,5,0][8,6,4]]
[[8,2,7][4,5,6][3,1,0]]
[[5,1,2][4,0,6][7,8,3]]
[[7,0,6][8,2,5][3,4,1]]
[[8,7,2][5,6,0][3,4,1]]
[[3,7,2][5,8,4][1,0,6]]
[[7,0,1][8,2,5][3,6,4]]
[[7,0,4][1,2,5][8,3,6]]
[[4,7,2][5,0,6][8,3,1]]
[[7,5,2][3,6,0][1,4,8]]
[[7,2,6][8,0,1][3,5,4]]
[[5,8,2][7,6,0][3,4,1]]
[[7,5,2][3,8,0][4,1,6]]
[[5,4,2][7,6,0][8,3,1]]
[[2,0,4][5,7,8][3,1,6]]
[[5,3,2][7,8,4][1,0,6]]
[[8,7,2][3,0,6][4,5,1]]
[[7,2,1][8,0,4][3,5,6]]
[[4,8,5][0,7,2][3,1,6]]
[[8,7,5][0,1,2][4,3,6]]
[[7,4,5][8,6,0][3,2,1]]
[[5,8,2][7,6,0][3,4,1]]
[[5,0,4][7,2,1][8,3,6]]
[[7,5,2][1,6,0][8,4,3]]
[[1,7,2][8,0,4][3,5,6]]
[[2,0,4][5,7,6][3,8,1]]
[[5,2,4][3,7,6][8,0,1]]
[[2,0,4][5,8,6][7,3,1]]
[[5,0,4][8,2,6][7,3,1]]
[[5,2,4][8,6,0][7,3,1]]
```

```
[[7,2,4][5,0,6][1,8,3]]
[[7,2,8][3,0,5][1,6,4]]
[[5,2,4][7,3,6][1,0,8]]
[[7,5,2][4,6,0][1,8,3]]
[[7,5,2][4,8,6][1,0,3]]
[[7,2,6][3,5,0][1,4,8]]
[[5,8,2][4,6,0][7,3,1]]
[[7,2,6][1,5,0][8,4,3]]
[[7,2,6][4,5,0][1,8,3]]
[[7,4,0][3,2,5][1,8,6]]
[[0,7,4][3,2,5][1,8,6]]
[[7,2,4][3,8,5][1,6,0]]
[[7,2,4][3,8,5][0,1,6]]
[[7,2,4][0,3,6][1,5,8]]
[[7,2,6][4,3,5][8,0,1]]
[[3,7,2][1,5,4][8,6,0]]
[[8,0,2][5,7,1][3,6,4]]
[[8,7,2][5,1,0][3,6,4]]
[[8,7,2][5,6,1][3,0,4]]
[[7,5,0][4,3,2][8,1,6]]
[[7,5,2][4,0,3][8,1,6]]
[[7,2,4][0,1,6][8,5,3]]
[[5,2,6][7,0,8][3,4,1]]
[[5,2,6][7,8,1][3,4,0]]
[[7,5,0][3,6,2][4,8,1]]
[[7,5,2][3,6,1][4,8,0]]
[[5,2,6][7,0,4][8,3,1]]
[[5,2,6][7,4,1][8,3,0]]
[[7,2,6][3,5,1][4,8,0]]
[[0,2,6][7,8,5][3,4,1]]
[[7,2,6][3,8,5][0,4,1]]
[[7,2,6][8,4,5][3,1,0]]
[[7,2,6][8,4,5][0,3,1]]
[[5,4,8][7,2,0][3,1,6]]
[[7,5,4][0,2,8][3,1,6]]
[[0,8,2][5,7,6][3,4,1]]
[[8,7,2][5,4,6][3,1,0]]
[[8,7,2][5,4,6][0,3,1]]
[[0,3,2][5,7,4][1,8,6]]
[[3,7,0][5,4,2][1,8,6]]
[[0,2,1][7,8,5][3,6,4]]
[[7,2,1][3,8,5][0,6,4]]
[[7,2,1][8,6,5][3,4,0]]
[[7,2,1][8,6,5][0,3,4]]
[[0,2,4][7,1,5][8,3,6]]
[[7,2,4][8,1,5][0,3,6]]
[[7,2,4][1,3,5][8,6,0]]
[[4,7,2][8,5,6][3,0,1]]
[[1,7,0][5,4,2][8,3,6]]
[[1,7,2][5,3,4][8,6,0]]
[[5,0,2][7,3,6][4,8,1]]
[[7,5,4][0,2,6][3,8,1]]
```

```
[[0,7,5][4,6,2][8,3,1]]
[[7,6,5][4,0,2][8,3,1]]
[[7,5,2][4,0,1][8,6,3]]
[[0,5,2][7,3,6][1,4,8]]
[[7,5,2][1,3,6][0,4,8]]
[[0,5,2][7,4,6][3,1,8]]
[[0,2,4][7,5,6][3,1,8]]
[[8,7,5][0,6,2][3,4,1]]
[[7,6,5][8,2,0][3,4,1]]
[[7,6,5][0,8,2][3,4,1]]
[[7,6,5][8,4,2][3,0,1]]
[[7,2,6][0,5,1][8,3,4]]
[[8,0,5][3,7,2][1,4,6]]
[[8,7,5][3,2,0][1,4,6]]
[[8,7,5][0,3,2][1,4,6]]
[[8,7,5][3,4,0][1,6,2]]
[[8,7,4][0,2,5][3,1,6]]
[[4,5,2][7,8,0][3,1,6]]
[[4,8,5][7,2,0][3,1,6]]
[[4,8,5][0,7,2][3,1,6]]
[[4,8,5][7,1,2][3,0,6]]
[[7,4,5][3,8,0][1,6,2]]
[[7,0,4][8,1,5][3,6,2]]
[[7,0,5][8,4,1][3,6,2]]
[[7,4,5][0,8,1][3,6,2]]
[[7,4,5][8,6,1][3,0,2]]
[[4,0,5][7,1,2][8,3,6]]
[[7,4,5][1,2,0][8,3,6]]
[[7,4,5][1,3,2][8,0,6]]
[[7,5,8][0,4,2][3,1,6]]
[[5,4,8][7,2,0][3,1,6]]
[[5,4,8][0,7,2][3,1,6]]
[[5,4,8][7,1,2][3,0,6]]
[[8,7,2][5,4,0][3,1,6]]
[[8,7,2][5,1,4][3,0,6]]
[[5,0,2][3,8,4][1,7,6]]
[[5,8,2][3,4,0][1,7,6]]
[[5,8,2][0,3,4][1,7,6]]
[[5,8,2][3,7,0][1,6,4]]
[[5,0,8][7,1,2][3,6,4]]
[[5,8,2][0,7,1][3,6,4]]
[[5,8,2][7,6,1][3,0,4]]
[[3,7,5][0,8,2][1,6,4]]
[[7,8,5][3,2,0][1,6,4]]
[[7,8,5][0,3,2][1,6,4]]
[[7,8,5][3,6,2][1,0,4]]
[[5,0,2][7,3,8][1,6,4]]
[[7,5,2][1,3,8][6,0,4]]
[[7,5,2][3,6,0][1,4,8]]
[[7,5,2][0,6,8][3,1,4]]
[[8,0,5][1,7,2][3,6,4]]
[[8,7,5][1,2,0][3,6,4]]
```

```
[[8,7,5][1,6,2][3,0,4]]
[[8,7,5][3,1,2][6,0,4]]
[[7,0,1][8,2,5][3,6,4]]
[[7,1,5][8,2,4][3,0,6]]
[[7,1,5][3,8,2][6,0,4]]
[[7,1,5][8,6,0][3,4,2]]
[[7,1,5][0,6,2][8,3,4]]
[[5,8,2][0,7,1][3,6,4]]
[[5,8,2][7,6,1][3,0,4]]
[[7,5,2][3,8,0][6,4,1]]
[[5,0,2][7,6,1][8,3,4]]
[[7,5,2][6,1,0][8,3,4]]
[[7,5,2][6,3,1][8,0,4]]
[[5,0,1][7,4,2][8,3,6]]
[[5,1,2][8,7,4][3,0,6]]
[[5,1,2][7,3,0][8,6,4]]
[[7,4,5][1,2,0][8,3,6]]
[[7,4,5][1,3,2][8,0,6]]
[[7,0,5][1,3,2][8,6,4]]
[[7,5,2][0,1,3][8,6,4]]
[[7,5,2][1,6,3][8,0,4]]
[[0,8,2][5,7,6][3,4,1]]
[[5,8,2][3,7,6][0,4,1]]
[[0,4,2][5,7,6][8,3,1]]
[[5,4,2][8,7,6][0,3,1]]
[[5,4,2][7,3,6][8,1,0]]
[[5,2,4][3,0,8][1,7,6]]
[[5,2,4][3,7,8][1,6,0]]
[[5,2,0][7,1,4][3,6,8]]
[[5,2,4][7,0,1][3,6,8]]
[[3,7,5][1,4,2][0,8,6]]
[[7,4,0][3,2,5][1,8,6]]
[[0,4,5][7,3,2][1,8,6]]
[[7,4,5][1,3,2][0,8,6]]
[[5,3,0][7,4,2][1,8,6]]
[[0,3,2][5,7,4][1,8,6]]
[[5,3,2][1,7,4][0,8,6]]
[[8,7,2][3,5,1][6,4,0]]
[[7,2,1][0,5,4][8,3,6]]
[[8,5,2][4,0,7][3,1,6]]
[[0,8,7][4,2,5][3,1,6]]
[[8,7,0][4,1,5][3,6,2]]
[[8,7,5][4,0,1][3,6,2]]
[[7,5,0][8,4,6][3,2,1]]
[[0,7,5][8,4,6][3,2,1]]
[[0,4,5][7,8,6][3,2,1]]
[[7,4,5][3,8,6][0,2,1]]
[[0,4,5][7,2,6][8,3,1]]
[[7,4,5][2,0,6][8,3,1]]
[[0,8,2][5,7,6][3,4,1]]
[[5,8,2][3,7,6][0,4,1]]
[[0,2,4][5,7,1][8,3,6]]
```

```
[[5,2,4][8,7,1][0,3,6]]
[[5,2,4][7,3,1][8,6,0]]
[[0,5,2][7,1,6][8,4,3]]
[[7,5,2][8,1,6][0,4,3]]
[[1,7,2][8,5,0][3,6,4]]
[[8,1,2][5,0,4][7,3,6]]
[[0,5,2][1,8,4][7,3,6]]
[[5,8,0][1,4,2][7,3,6]]
[[5,8,2][1,3,4][7,6,0]]
[[3,7,2][1,5,8][0,6,4]]
[[5,0,2][7,3,6][4,8,1]]
[[5,2,4][0,7,3][1,8,6]]
[[5,2,4][8,3,6][7,1,0]]
[[8,0,5][4,7,6][3,2,1]]
[[5,2,4][0,7,6][8,1,3]]
[[5,0,2][7,4,6][1,8,3]]
[[7,2,8][3,5,4][1,0,6]]
[[3,7,2][0,5,6][1,4,8]]
[[7,4,0][3,2,5][1,8,6]]
[[0,4,5][7,3,2][1,8,6]]
[[7,4,5][1,3,2][0,8,6]]
[[8,2,4][5,0,7][3,1,6]]
[[5,2,1][7,0,8][3,6,4]]
[[5,2,1][7,8,4][3,6,0]]
[[7,5,0][3,1,2][6,8,4]]
[[7,5,2][3,1,4][6,8,0]]
[[0,5,2][7,3,1][6,8,4]]
[[7,5,2][6,3,1][0,8,4]]
[[5,1,2][7,0,6][8,4,3]]
[[5,2,4][1,8,0][7,3,6]]
[[5,2,4][1,3,8][7,0,6]]
[[8,0,2][5,4,6][7,3,1]]
[[3,7,2][0,5,1][6,8,4]]
[[5,0,2][3,1,4][7,8,6]]
[[5,1,2][3,4,0][7,8,6]]
[[0,5,2][4,8,6][7,3,1]]
[[5,8,2][4,3,6][7,1,0]]
[[7,2,1][3,5,4][6,8,0]]
[[3,2,4][5,7,0][1,8,6]]
[[1,2,4][5,7,0][8,3,6]]
[[1,7,2][5,4,6][8,0,3]]
[[1,7,2][0,3,4][5,8,6]]
[[7,5,2][4,1,6][3,0,8]]
[[0,7,2][8,5,4][3,1,6]]
[[8,7,2][3,5,4][0,1,6]]
[[1,5,0][7,8,2][3,6,4]]
[[1,8,5][7,0,2][3,6,4]]
[[0,7,2][6,5,1][8,3,4]]
[[1,7,5][8,4,2][0,3,6]]
[[0,7,2][1,5,3][8,6,4]]
[[3,0,5][4,7,2][1,8,6]]
[[3,7,5][4,2,0][1,8,6]]
```

```
[[8,5,2][4,7,6][3,0,1]]
[[8,2,7][4,1,5][3,0,6]]
[[8,2,4][5,1,0][7,3,6]]
[[5,2,4][1,8,0][7,3,6]]
[[5,8,2][1,4,6][7,0,3]]
[[8,2,4][5,7,6][3,0,1]]
[[1,7,2][8,5,6][0,4,3]]
[[1,3,2][5,0,4][7,8,6]]
[[0,7,2][4,5,6][3,1,8]]
[[7,2,1][6,5,0][8,3,4]]
[[1,0,5][4,7,2][8,3,6]]
[[1,7,5][4,2,0][8,3,6]]
[[1,7,5][4,3,2][8,0,6]]
[[0,4,2][5,3,6][7,8,1]]
[[5,4,2][3,0,6][7,8,1]]
[[8,2,0][4,5,7][3,1,6]]
[[0,2,4][5,3,1][7,8,6]]
[[5,2,4][3,0,1][7,8,6]]
[[0,1,2][5,4,6][7,8,3]]
[[1,2,4][5,3,0][7,8,6]]
[[7,2,3][1,5,4][8,6,0]]
[[8,2,7][4,5,6][3,0,1]]
[[5,0,2][4,1,6][7,8,3]]
[[7,2,6][4,3,5][0,8,1]]
[[8,2,0][5,7,1][3,6,4]]
[[7,0,2][4,5,3][8,1,6]]
[[5,4,8][7,2,6][3,1,0]]
[[5,2,0][7,3,6][4,8,1]]
[[7,0,2][4,5,1][8,6,3]]
[[8,7,5][3,2,6][1,4,0]]
[[4,5,2][7,8,6][3,1,0]]
[[4,8,5][7,2,6][3,1,0]]
[[7,4,5][1,2,6][8,3,0]]
[[7,4,5][1,3,2][0,8,6]]
[[7,5,8][4,0,2][3,1,6]]
[[5,4,8][7,2,6][3,1,0]]
[[5,2,0][3,8,4][1,7,6]]
[[5,8,2][3,4,6][1,7,0]]
[[5,2,0][7,3,8][1,6,4]]
[[7,1,5][3,0,2][6,8,4]]
[[7,1,5][8,0,6][3,4,2]]
[[5,2,0][7,6,1][8,3,4]]
[[7,5,2][6,3,1][0,8,4]]
[[7,4,5][1,2,6][8,3,0]]
[[7,4,5][1,3,2][0,8,6]]
[[7,5,2][1,6,3][0,8,4]]
[[5,0,3][7,4,2][1,8,6]]
[[8,0,2][4,5,7][3,1,6]]
[[8,1,2][0,5,4][7,3,6]]
[[1,5,2][0,8,4][7,3,6]]
[[5,2,0][7,3,6][4,8,1]]
[[5,2,0][7,4,6][1,8,3]]
```

```
[[8,2,4][0,5,7][3,1,6]]
[[5,2,4][1,8,6][7,3,0]]
[[8,2,0][5,4,6][7,3,1]]
[[5,2,0][3,1,4][7,8,6]]
[[5,1,2][3,4,6][7,8,0]]
[[3,2,4][5,7,6][1,8,0]]
[[1,2,4][5,7,6][8,3,0]]
[[1,7,2][5,4,6][0,8,3]]
[[7,5,2][4,1,6][3,8,0]]
[[1,7,2][0,5,3][8,6,4]]
[[3,7,5][4,2,6][1,8,0]]
[[8,2,4][5,1,6][7,3,0]]
[[5,2,4][1,8,6][7,3,0]]
[[1,3,2][0,5,4][7,8,6]]
[[1,7,5][4,2,6][8,3,0]]
[[1,7,5][4,3,2][0,8,6]]
[[1,0,2][5,4,6][7,8,3]]
[[1,2,4][5,3,6][7,8,0]]
[[5,2,0][4,1,6][7,8,3]]
[[7,2,0][4,5,3][8,1,6]]
[[7,2,0][4,5,1][8,6,3]]
[[7,0,8][4,5,2][3,1,6]]
[[1,2,0][5,4,6][7,8,3]]
[[7,2,3][4,5,0][8,1,6]]
[[7,2,3][4,5,6][8,1,0]]
[[7,0,4][3,2,6][1,5,8]]
[[7,2,4][3,6,0][1,5,8]]
[[7,0,6][4,2,5][8,3,1]]
[[7,2,6][0,4,5][8,3,1]]
[[3,7,2][1,0,4][8,5,6]]
[[7,0,4][1,2,6][8,5,3]]
[[7,2,4][1,6,0][8,5,3]]
[[7,2,6][3,0,5][4,8,1]]
[[0,1,2][5,7,4][8,3,6]]
[[5,4,6][7,2,0][3,8,1]]
[[5,0,2][7,6,4][3,8,1]]
[[5,2,4][7,6,1][3,0,8]]
[[2,0,4][7,3,5][1,8,6]]
[[7,2,4][5,0,6][3,1,8]]
[[7,2,6][4,0,1][8,5,3]]
[[8,7,2][3,5,0][4,1,6]]
[[8,7,2][3,0,1][6,5,4]]
[[5,8,2][1,3,4][0,7,6]]
[[3,7,2][5,0,8][1,6,4]]
[[5,0,4][7,2,3][1,8,6]]
[[5,2,4][7,8,3][1,0,6]]
[[5,2,4][8,3,6][0,7,1]]
[[8,7,5][4,6,0][3,2,1]]
[[8,7,5][0,4,6][3,2,1]]
[[8,7,5][0,2,6][4,3,1]]
[[5,0,4][7,2,6][8,1,3]]
[[5,2,4][7,6,0][8,1,3]]
```

```
[[2,0,4][7,5,6][1,8,3]]
[[3,7,2][5,0,6][4,8,1]]
[[2,0,4][5,1,8][7,3,6]]
[[5,0,4][1,2,8][7,3,6]]
[[5,1,2][3,8,4][7,0,6]]
[[5,8,2][4,3,6][0,7,1]]
[[2,0,4][5,1,6][7,8,3]]
[[5,0,4][1,2,6][7,8,3]]
[[5,2,4][1,6,0][7,8,3]]
[[5,2,4][1,8,6][7,0,3]]
[[4,7,2][0,5,6][1,8,3]]
[[7,2,1][3,0,5][6,8,4]]
[[8,2,6][5,7,0][3,4,1]]
[[3,7,2][5,4,6][1,0,8]]
[[7,5,2][0,6,1][4,8,3]]
[[7,5,2][4,6,0][3,1,8]]
[[7,2,6][0,5,1][4,8,3]]
[[3,7,5][4,8,2][1,0,6]]
[[7,4,5][3,2,6][1,0,8]]
[[5,3,2][7,4,6][1,0,8]]
[[8,2,7][0,4,5][3,1,6]]
[[3,7,2][4,5,6][8,0,1]]
[[7,4,5][3,2,6][1,0,8]]
[[1,7,2][5,0,6][8,4,3]]
[[5,2,6][4,8,0][7,3,1]]
[[7,2,6][4,5,0][3,1,8]]
[[7,2,3][1,0,5][8,6,4]]
[[5,1,2][4,6,0][7,8,3]]
[[5,1,2][4,8,6][7,0,3]]
[[7,6,0][8,2,5][3,4,1]]
[[0,7,6][8,2,5][3,4,1]]
[[8,7,0][5,6,2][3,4,1]]
[[8,7,2][5,6,1][3,4,0]]
[[3,7,2][5,8,4][1,6,0]]
[[3,7,2][5,8,4][0,1,6]]
[[0,7,1][8,2,5][3,6,4]]
[[7,4,0][1,2,5][8,3,6]]
[[0,7,4][1,2,5][8,3,6]]
[[4,0,2][5,7,6][8,3,1]]
[[4,7,2][5,3,6][8,0,1]]
[[7,5,0][3,6,2][1,4,8]]
[[7,2,6][8,1,0][3,5,4]]
[[7,2,6][0,8,1][3,5,4]]
[[5,8,0][7,6,2][3,4,1]]
[[5,8,2][7,6,1][3,4,0]]
[[7,5,0][3,8,2][4,1,6]]
[[7,5,2][3,0,8][4,1,6]]
[[5,4,0][7,6,2][8,3,1]]
[[5,4,2][7,6,1][8,3,0]]
[[2,4,0][5,7,8][3,1,6]]
[[2,7,4][5,0,8][3,1,6]]
[[5,3,2][7,8,4][1,6,0]]
```

```
[[5,3,2][7,8,4][0,1,6]]
[[8,0,2][3,7,6][4,5,1]]
[[8,7,2][0,3,6][4,5,1]]
[[7,2,1][8,4,0][3,5,6]]
[[7,2,1][0,8,4][3,5,6]]
[[4,8,5][3,7,2][0,1,6]]
[[0,7,5][8,1,2][4,3,6]]
[[8,7,5][1,0,2][4,3,6]]
[[7,4,0][8,6,5][3,2,1]]
[[7,4,5][8,6,1][3,2,0]]
[[5,8,0][7,6,2][3,4,1]]
[[5,8,2][7,6,1][3,4,0]]
[[5,4,0][7,2,1][8,3,6]]
[[0,5,4][7,2,1][8,3,6]]
[[7,5,0][1,6,2][8,4,3]]
[[7,5,2][1,6,3][8,4,0]]
[[1,0,2][8,7,4][3,5,6]]
[[1,7,2][8,4,0][3,5,6]]
[[1,7,2][0,8,4][3,5,6]]
[[2,4,0][5,7,6][3,8,1]]
[[2,7,4][5,0,6][3,8,1]]
[[5,2,4][3,0,6][8,7,1]]
[[5,2,4][3,7,6][8,1,0]]
[[2,4,0][5,8,6][7,3,1]]
[[2,8,4][5,0,6][7,3,1]]
[[5,4,0][8,2,6][7,3,1]]
[[0,5,4][8,2,6][7,3,1]]
[[5,2,0][8,6,4][7,3,1]]
[[5,2,4][8,6,1][7,3,0]]
[[7,2,8][0,3,5][1,6,4]]
[[7,2,8][3,6,5][1,0,4]]
[[5,2,4][7,0,6][1,3,8]]
[[5,2,4][7,3,6][0,1,8]]
[[7,5,0][4,6,2][1,8,3]]
[[7,5,2][4,6,3][1,8,0]]
[[7,5,2][4,8,6][1,3,0]]
[[7,5,2][4,8,6][0,1,3]]
[[7,2,6][3,5,8][1,4,0]]
[[5,8,0][4,6,2][7,3,1]]
[[5,8,2][4,6,1][7,3,0]]
[[7,2,6][1,5,3][8,4,0]]
[[7,2,6][4,5,3][1,8,0]]
[[3,7,4][0,2,5][1,8,6]]
[[7,2,4][3,8,0][1,6,5]]
[[7,2,4][0,8,5][3,1,6]]
[[0,2,4][7,3,6][1,5,8]]
[[7,2,4][1,3,6][0,5,8]]
[[7,2,6][4,3,5][8,1,0]]
[[3,7,2][1,5,0][8,6,4]]
[[0,8,2][5,7,1][3,6,4]]
[[8,7,0][5,1,2][3,6,4]]
[[8,7,2][5,1,4][3,6,0]]
```

```
[[8,7,2][5,6,1][3,4,0]]
[[8,7,2][5,6,1][0,3,4]]
[[7,0,5][4,3,2][8,1,6]]
[[7,5,2][4,1,3][8,0,6]]
[[0,2,4][7,1,6][8,5,3]]
[[7,2,4][8,1,6][0,5,3]]
[[5,2,6][0,7,8][3,4,1]]
[[5,2,6][7,4,8][3,0,1]]
[[5,2,6][7,8,1][3,0,4]]
[[7,0,5][3,6,2][4,8,1]]
[[5,2,6][0,7,4][8,3,1]]
[[5,2,6][7,3,4][8,0,1]]
[[5,2,6][7,4,1][8,0,3]]
[[7,2,6][3,8,5][4,0,1]]
[[7,2,6][8,4,0][3,1,5]]
[[7,2,6][0,4,5][8,3,1]]
[[7,5,4][2,0,8][3,1,6]]
[[7,5,4][3,2,8][0,1,6]]
[[8,7,2][0,4,6][5,3,1]]
[[3,0,7][5,4,2][1,8,6]]
[[7,2,1][3,8,5][6,0,4]]
[[7,2,1][8,6,0][3,4,5]]
[[7,2,1][0,6,5][8,3,4]]
[[7,2,4][8,1,5][3,0,6]]
[[7,2,4][1,3,0][8,6,5]]
[[4,7,2][8,5,6][3,1,0]]
[[1,0,7][5,4,2][8,3,6]]
[[1,7,2][5,3,0][8,6,4]]
[[5,3,2][7,0,6][4,8,1]]
[[7,5,4][2,0,6][3,8,1]]
[[7,5,4][3,2,6][0,8,1]]
[[7,6,5][4,2,0][8,3,1]]
[[7,6,5][4,3,2][8,0,1]]
[[7,5,2][4,1,0][8,6,3]]
[[5,0,2][7,3,6][1,4,8]]
[[7,5,2][1,3,6][4,0,8]]
[[5,0,2][7,4,6][3,1,8]]
[[8,7,5][6,0,2][3,4,1]]
[[8,7,5][3,6,2][0,4,1]]
[[7,6,0][8,2,5][3,4,1]]
[[7,6,5][8,2,1][3,4,0]]
[[0,6,5][7,8,2][3,4,1]]
[[7,6,5][3,8,2][0,4,1]]
[[7,6,5][8,4,2][3,1,0]]
[[7,6,5][8,4,2][0,3,1]]
[[0,2,6][7,5,1][8,3,4]]
[[8,5,0][3,7,2][1,4,6]]
[[0,8,5][3,7,2][1,4,6]]
[[8,7,0][3,2,5][1,4,6]]
[[0,7,5][8,3,2][1,4,6]]
[[8,7,5][1,3,2][0,4,6]]
[[8,7,0][3,4,5][1,6,2]]
```

```
[[8,7,5][3,0,4][1,6,2]]
[[8,7,4][2,0,5][3,1,6]]
[[8,7,4][3,2,5][0,1,6]]
[[4,5,2][7,0,8][3,1,6]]
[[4,8,0][7,2,5][3,1,6]]
[[4,8,5][3,7,2][0,1,6]]
[[4,8,5][7,1,2][3,6,0]]
[[4,8,5][7,1,2][0,3,6]]
[[7,4,0][3,8,5][1,6,2]]
[[7,4,5][3,0,8][1,6,2]]
[[0,7,4][8,1,5][3,6,2]]
[[7,1,4][8,0,5][3,6,2]]
[[7,5,0][8,4,1][3,6,2]]
[[0,7,5][8,4,1][3,6,2]]
[[0,4,5][7,8,1][3,6,2]]
[[7,4,5][3,8,1][0,6,2]]
[[7,4,5][8,6,1][3,2,0]]
[[7,4,5][8,6,1][0,3,2]]
[[4,5,0][7,1,2][8,3,6]]
[[4,1,5][7,0,2][8,3,6]]
[[7,4,0][1,2,5][8,3,6]]
[[7,4,5][1,3,2][8,6,0]]
[[7,5,8][3,4,2][0,1,6]]
[[0,4,8][5,7,2][3,1,6]]
[[5,4,8][3,7,2][0,1,6]]
[[5,4,8][7,1,2][3,6,0]]
[[5,4,8][7,1,2][0,3,6]]
[[8,7,0][5,4,2][3,1,6]]
[[8,7,2][5,1,4][3,6,0]]
[[8,7,2][5,1,4][0,3,6]]
[[0,5,2][3,8,4][1,7,6]]
[[5,8,0][3,4,2][1,7,6]]
[[0,8,2][5,3,4][1,7,6]]
[[5,8,2][1,3,4][0,7,6]]
[[5,8,0][3,7,2][1,6,4]]
[[5,8,2][3,0,7][1,6,4]]
[[0,5,8][7,1,2][3,6,4]]
[[5,1,8][7,0,2][3,6,4]]
[[0,8,2][5,7,1][3,6,4]]
[[5,8,2][3,7,1][0,6,4]]
[[5,8,2][7,6,1][3,4,0]]
[[5,8,2][7,6,1][0,3,4]]
[[3,7,5][8,0,2][1,6,4]]
[[3,7,5][1,8,2][0,6,4]]
[[7,8,0][3,2,5][1,6,4]]
[[7,8,5][3,2,4][1,6,0]]
[[0,8,5][7,3,2][1,6,4]]
[[7,8,5][1,3,2][0,6,4]]
[[7,8,5][3,6,2][1,4,0]]
[[7,8,5][3,6,2][0,1,4]]
[[5,3,2][7,0,8][1,6,4]]
[[7,5,2][1,0,8][6,3,4]]
```

```
[[7,5,2][1,3,8][6,4,0]]
[[7,5,0][3,6,2][1,4,8]]
[[0,5,2][7,6,8][3,1,4]]
[[7,5,2][6,0,8][3,1,4]]
[[8,5,0][1,7,2][3,6,4]]
[[0,8,5][1,7,2][3,6,4]]
[[8,7,0][1,2,5][3,6,4]]
[[8,7,5][1,2,4][3,6,0]]
[[8,7,5][1,6,2][3,4,0]]
[[8,7,5][1,6,2][0,3,4]]
[[8,7,5][3,0,2][6,1,4]]
[[8,7,5][3,1,2][6,4,0]]
[[0,7,1][8,2,5][3,6,4]]
[[7,1,5][8,0,4][3,2,6]]
[[7,1,5][8,2,4][0,3,6]]
[[7,1,5][3,8,2][6,4,0]]
[[7,1,0][8,6,5][3,4,2]]
[[0,1,5][7,6,2][8,3,4]]
[[7,1,5][6,0,2][8,3,4]]
[[0,8,2][5,7,1][3,6,4]]
[[5,8,2][3,7,1][0,6,4]]
[[5,8,2][7,6,1][3,4,0]]
[[5,8,2][7,6,1][0,3,4]]
[[7,5,0][3,8,2][6,4,1]]
[[7,5,2][3,0,8][6,4,1]]
[[5,6,2][7,0,1][8,3,4]]
[[7,5,0][6,1,2][8,3,4]]
[[7,5,2][6,1,4][8,3,0]]
[[7,5,2][6,3,1][8,4,0]]
[[0,5,1][7,4,2][8,3,6]]
[[5,4,1][7,0,2][8,3,6]]
[[5,1,2][8,0,4][3,7,6]]
[[5,1,2][8,7,4][3,6,0]]
[[5,1,0][7,3,2][8,6,4]]
[[5,1,2][7,0,3][8,6,4]]
[[7,4,0][1,2,5][8,3,6]]
[[7,4,5][1,3,2][8,6,0]]
[[0,7,5][1,3,2][8,6,4]]
[[7,3,5][1,0,2][8,6,4]]
[[0,5,2][7,1,3][8,6,4]]
[[7,5,2][8,1,3][0,6,4]]
[[7,5,2][1,6,3][8,4,0]]
[[5,8,2][3,7,6][4,0,1]]
[[4,0,2][5,7,6][8,3,1]]
[[5,4,2][8,7,6][3,0,1]]
[[5,2,4][3,8,0][1,7,6]]
[[5,2,4][0,3,8][1,7,6]]
[[5,2,4][3,7,0][1,6,8]]
[[5,2,4][0,7,1][3,6,8]]
[[5,2,4][7,6,1][3,0,8]]
[[4,0,5][7,3,2][1,8,6]]
[[8,7,2][3,5,0][6,4,1]]
```

```
[[0,2,1][7,5,4][8,3,6]]
[[8,5,2][4,1,7][3,0,6]]
[[8,0,7][4,1,5][3,6,2]]
[[8,0,5][4,7,1][3,6,2]]
[[8,7,5][4,6,1][3,0,2]]
[[8,7,5][0,4,6][3,2,1]]
[[4,0,5][7,8,6][3,2,1]]
[[7,4,5][3,8,6][2,0,1]]
[[4,0,5][7,2,6][8,3,1]]
[[7,0,5][2,4,6][8,3,1]]
[[7,4,5][2,3,6][8,0,1]]
[[5,8,2][3,7,6][4,0,1]]
[[5,2,4][8,7,1][3,0,6]]
[[5,2,4][7,3,0][8,6,1]]
[[5,0,2][7,1,6][8,4,3]]
[[7,5,2][8,1,6][4,0,3]]
[[1,7,0][8,5,2][3,6,4]]
[[8,1,2][5,4,0][7,3,6]]
[[8,1,2][5,3,4][7,0,6]]
[[5,0,8][1,4,2][7,3,6]]
[[5,8,2][1,3,0][7,6,4]]
[[3,7,2][1,5,8][6,0,4]]
[[5,3,2][7,0,6][4,8,1]]
[[0,2,4][5,7,3][1,8,6]]
[[5,2,4][1,7,3][0,8,6]]
[[8,5,0][4,7,6][3,2,1]]
[[0,8,5][4,7,6][3,2,1]]
[[0,2,4][5,7,6][8,1,3]]
[[5,2,4][8,7,6][0,1,3]]
[[5,4,2][7,0,6][1,8,3]]
[[7,2,8][3,5,4][0,1,6]]
[[3,7,2][1,5,6][0,4,8]]
[[4,0,5][7,3,2][1,8,6]]
[[8,2,4][5,1,7][3,0,6]]
[[5,2,1][0,7,8][3,6,4]]
[[5,2,1][7,6,8][3,0,4]]
[[5,2,1][7,8,4][3,0,6]]
[[7,0,5][3,1,2][6,8,4]]
[[5,0,2][7,3,1][6,8,4]]
[[5,0,2][7,1,6][8,4,3]]
[[5,1,2][0,7,6][8,4,3]]
[[5,2,4][1,3,8][7,6,0]]
[[8,4,2][5,0,6][7,3,1]]
[[3,7,2][6,5,1][0,8,4]]
[[0,5,2][3,1,4][7,8,6]]
[[5,1,0][3,4,2][7,8,6]]
[[3,2,4][5,0,7][1,8,6]]
[[1,2,4][5,0,7][8,3,6]]
[[1,7,2][5,0,6][8,4,3]]
[[1,7,2][3,0,4][5,8,6]]
[[7,5,2][4,1,6][0,3,8]]
[[8,7,2][3,5,4][1,0,6]]
```

```
[[1,5,2][7,8,0][3,6,4]]
[[1,8,5][7,2,0][3,6,4]]
[[1,8,5][0,7,2][3,6,4]]
[[1,8,5][7,6,2][3,0,4]]
[[6,7,2][0,5,1][8,3,4]]
[[1,7,5][8,4,2][3,0,6]]
[[3,5,0][4,7,2][1,8,6]]
[[0,3,5][4,7,2][1,8,6]]
[[3,7,0][4,2,5][1,8,6]]
[[8,5,2][4,0,6][3,7,1]]
[[8,5,2][4,7,6][0,3,1]]
[[8,2,7][4,1,5][3,6,0]]
[[8,2,7][4,1,5][0,3,6]]
[[8,2,4][5,0,1][7,3,6]]
[[5,8,2][1,0,6][7,4,3]]
[[8,2,4][5,0,6][3,7,1]]
[[8,2,4][5,7,6][0,3,1]]
[[1,7,2][8,5,6][4,0,3]]
[[1,3,2][5,4,0][7,8,6]]
[[7,2,1][6,5,4][8,3,0]]
[[1,5,0][4,7,2][8,3,6]]
[[1,7,0][4,2,5][8,3,6]]
[[1,7,5][4,3,2][8,6,0]]
[[4,0,2][5,3,6][7,8,1]]
[[5,0,2][3,4,6][7,8,1]]
[[5,2,4][3,1,0][7,8,6]]
[[1,2,4][5,0,3][7,8,6]]
[[7,2,3][1,5,4][8,0,6]]
[[8,2,7][4,5,6][0,3,1]]
[[0,5,2][4,1,6][7,8,3]]
[[8,2,1][5,7,0][3,6,4]]
[[0,7,2][4,5,3][8,1,6]]
[[5,4,8][7,2,6][3,0,1]]
[[0,7,2][4,5,1][8,6,3]]
[[8,7,5][3,2,6][1,0,4]]
[[4,5,2][7,8,6][3,0,1]]
[[4,8,5][7,2,6][3,0,1]]
[[7,4,5][1,2,6][8,0,3]]
[[7,5,8][4,2,0][3,1,6]]
[[7,5,8][4,1,2][3,0,6]]
[[5,4,8][7,2,6][3,0,1]]
[[5,2,4][3,8,0][1,7,6]]
[[5,8,2][3,4,6][1,0,7]]
[[5,2,8][7,3,0][1,6,4]]
[[7,0,5][3,1,2][6,8,4]]
[[7,1,5][3,2,0][6,8,4]]
[[7,1,5][0,3,2][6,8,4]]
[[7,0,5][8,1,6][3,4,2]]
[[7,1,5][0,8,6][3,4,2]]
[[7,1,5][8,4,6][3,0,2]]
[[5,2,1][7,6,0][8,3,4]]
[[7,4,5][1,2,6][8,0,3]]
```

```
[[7,5,2][0,6,3][1,8,4]]
[[0,5,3][7,4,2][1,8,6]]
[[5,4,3][7,0,2][1,8,6]]
[[0,8,2][4,5,7][3,1,6]]
[[0,1,2][8,5,4][7,3,6]]
[[1,5,2][8,0,4][7,3,6]]
[[0,2,4][8,5,7][3,1,6]]
[[8,2,4][3,5,7][0,1,6]]
[[5,2,4][1,8,6][7,0,3]]
[[5,2,4][3,1,0][7,8,6]]
[[1,2,4][5,7,6][8,0,3]]
[[1,7,2][0,4,6][5,8,3]]
[[1,7,2][8,5,3][0,6,4]]
[[8,2,4][5,1,6][7,0,3]]
[[5,2,4][1,8,6][7,0,3]]
[[1,7,5][4,2,6][8,0,3]]
[[1,4,2][5,0,6][7,8,3]]
[[7,2,1][4,5,0][8,6,3]]
[[7,8,0][4,5,2][3,1,6]]
[[0,7,8][4,5,2][3,1,6]]
[[7,2,3][4,5,6][8,0,1]]
[[1,7,4][0,2,5][8,3,6]]
[[4,2,0][5,7,6][8,3,1]]
[[4,7,2][5,3,6][0,8,1]]
[[7,2,0][8,1,6][3,5,4]]
[[7,0,2][3,5,8][4,1,6]]
[[2,7,4][0,5,8][3,1,6]]
[[5,3,2][0,8,4][7,1,6]]
[[8,2,0][3,7,6][4,5,1]]
[[8,7,2][4,3,6][0,5,1]]
[[7,2,1][8,4,6][3,5,0]]
[[1,2,0][8,7,4][3,5,6]]
[[1,7,2][8,4,6][3,5,0]]
[[2,7,4][0,5,6][3,8,1]]
[[2,8,4][0,5,6][7,3,1]]
[[5,2,4][0,3,6][7,1,8]]
[[7,5,2][4,1,3][0,8,6]]
[[5,2,6][7,0,1][3,8,4]]
[[5,2,6][7,3,4][0,8,1]]
[[5,2,6][7,4,1][0,8,3]]
[[7,2,0][8,4,6][3,1,5]]
[[7,0,4][2,5,8][3,1,6]]
[[8,7,2][4,0,6][5,3,1]]
[[7,2,1][8,0,6][3,4,5]]
[[7,0,4][2,5,6][3,8,1]]
[[7,6,5][4,3,2][0,8,1]]
[[5,2,0][7,3,6][1,4,8]]
[[7,5,2][1,3,6][4,8,0]]
[[5,2,0][7,4,6][3,1,8]]
[[8,7,4][2,5,0][3,1,6]]
[[4,0,2][7,5,8][3,1,6]]
[[4,8,5][0,1,2][7,3,6]]
```

```
[[7,1,4][8,5,0][3,6,2]]
[[5,4,8][0,1,2][7,3,6]]
[[5,8,2][0,6,1][7,3,4]]
[[7,0,2][1,5,8][6,3,4]]
[[7,0,2][6,5,8][3,1,4]]
[[1,8,5][0,7,2][3,6,4]]
[[1,0,5][7,6,2][8,3,4]]
[[5,8,2][0,6,1][7,3,4]]
[[7,0,2][3,5,8][6,4,1]]
[[1,7,5][0,3,2][8,6,4]]
[[4,2,0][5,7,6][8,3,1]]
[[5,2,4][3,8,6][1,7,0]]
[[7,4,5][3,0,6][2,8,1]]
[[4,2,5][7,0,6][8,3,1]]
[[7,4,5][2,3,6][0,8,1]]
[[5,2,0][7,1,6][8,4,3]]
[[8,1,2][5,4,6][7,3,0]]
[[5,2,1][7,0,4][3,8,6]]
[[5,2,0][7,3,1][6,8,4]]
[[5,2,0][7,1,6][8,4,3]]
[[8,4,2][0,5,6][7,3,1]]
[[3,2,4][0,5,7][1,8,6]]
[[1,2,4][0,5,7][8,3,6]]
[[8,0,2][4,5,6][3,7,1]]
[[8,2,4][0,5,1][7,3,6]]
[[8,2,4][0,5,6][3,7,1]]
[[1,3,2][5,4,6][7,8,0]]
[[4,2,0][5,3,6][7,8,1]]
[[5,2,0][3,4,6][7,8,1]]
[[5,2,4][3,1,6][7,8,0]]
[[1,2,4][0,5,3][7,8,6]]
[[7,2,3][1,5,4][0,8,6]]
[[4,5,2][7,0,6][3,8,1]]
[[7,4,5][1,2,6][0,8,3]]
[[7,5,8][4,2,6][3,1,0]]
[[5,2,4][3,8,6][1,7,0]]
[[5,2,1][7,0,6][8,3,4]]
[[7,4,5][1,2,6][0,8,3]]
[[1,0,2][8,5,4][7,3,6]]
[[1,0,2][8,5,4][7,3,6]]
[[5,2,4][3,1,6][7,8,0]]
[[1,2,4][5,7,6][0,8,3]]
[[1,7,2][4,0,6][5,8,3]]
[[1,7,5][4,2,6][0,8,3]]
[[1,4,2][0,5,6][7,8,3]]
[[7,2,3][4,5,6][0,8,1]]
[[7,2,0][3,5,8][4,1,6]]
[[5,2,6][0,3,4][7,8,1]]
[[5,2,6][0,4,1][7,8,3]]
[[8,7,4][2,5,6][3,1,0]]
[[4,2,0][7,5,8][3,1,6]]
[[0,8,5][4,1,2][7,3,6]]
```

```
[[7,2,0][1,5,8][6,3,4]]
[[7,2,0][6,5,8][3,1,4]]
[[7,2,0][3,5,8][6,4,1]]
[[8,2,0][4,5,6][3,7,1]]
[[4,0,2][7,5,6][3,8,1]]
[[1,2,0][8,5,4][7,3,6]]
[[1,2,0][8,5,4][7,3,6]]
[[5,2,6][4,0,1][7,8,3]]
[[4,2,0][7,5,6][3,8,1]]
[[4,7,2][5,6,0][8,3,1]]
[[7,0,6][8,2,1][3,5,4]]
[[8,7,2][3,6,0][4,5,1]]
[[7,0,1][8,2,4][3,5,6]]
[[7,0,4][5,2,6][1,8,3]]
[[7,2,4][5,6,0][1,8,3]]
[[7,2,4][5,8,6][1,0,3]]
[[7,0,8][3,2,5][1,6,4]]
[[7,2,6][3,0,5][1,4,8]]
[[7,2,6][1,0,5][8,4,3]]
[[7,2,6][4,0,5][1,8,3]]
[[7,5,2][0,4,3][8,1,6]]
[[5,0,6][7,2,8][3,4,1]]
[[7,5,2][3,6,1][4,0,8]]
[[5,0,6][7,2,4][8,3,1]]
[[7,2,6][3,5,1][4,0,8]]
[[2,0,6][7,8,5][3,4,1]]
[[8,7,2][5,4,0][3,1,6]]
[[2,0,1][7,8,5][3,6,4]]
[[2,0,4][7,1,5][8,3,6]]
[[4,7,2][8,0,6][3,5,1]]
[[4,7,5][0,6,2][8,3,1]]
[[7,6,5][0,4,2][8,3,1]]
[[7,5,2][0,4,1][8,6,3]]
[[2,0,4][7,5,6][3,1,8]]
[[7,2,6][5,0,1][8,3,4]]
[[5,4,2][7,3,0][8,1,6]]
[[5,0,4][3,2,8][1,7,6]]
[[5,0,2][7,1,4][3,6,8]]
[[5,0,4][7,2,1][3,6,8]]
[[3,7,5][1,4,2][8,0,6]]
[[5,3,2][1,7,4][8,0,6]]
[[7,2,1][5,0,4][8,3,6]]
[[8,5,2][0,4,7][3,1,6]]
[[4,8,7][0,2,5][3,1,6]]
[[8,7,5][0,4,1][3,6,2]]
[[7,5,6][8,4,0][3,2,1]]
[[7,4,5][2,6,0][8,3,1]]
[[2,0,4][5,7,1][8,3,6]]
[[1,7,2][8,0,5][3,6,4]]
[[5,2,4][8,3,0][7,1,6]]
[[7,2,8][3,0,4][1,5,6]]
[[3,7,2][5,0,6][1,4,8]]
```

```
[[8,0,4][5,2,7][3,1,6]]
[[5,0,1][7,2,8][3,6,4]]
[[7,5,2][3,1,4][6,0,8]]
[[5,1,2][7,6,0][8,4,3]]
[[5,2,4][1,3,8][0,7,6]]
[[3,7,2][5,0,1][6,8,4]]
[[4,5,2][0,8,6][7,3,1]]
[[5,8,2][4,3,0][7,1,6]]
[[7,2,1][3,5,4][6,0,8]]
[[0,7,2][1,3,4][5,8,6]]
[[5,8,2][1,4,6][0,7,3]]
[[1,3,2][5,8,4][7,0,6]]
[[4,7,2][0,5,6][3,1,8]]
[[7,2,1][6,0,5][8,3,4]]
[[0,1,5][4,7,2][8,3,6]]
[[5,4,2][3,6,0][7,8,1]]
[[5,4,2][3,8,6][7,0,1]]
[[8,0,2][4,5,7][3,1,6]]
[[2,0,4][5,3,1][7,8,6]]
[[5,0,4][3,2,1][7,8,6]]
[[5,2,4][3,8,1][7,0,6]]
[[8,2,7][4,0,6][3,5,1]]
[[7,2,6][0,3,5][4,8,1]]
[[5,2,6][7,3,0][4,8,1]]
[[8,1,2][7,5,4][0,3,6]]
[[1,5,2][7,8,4][0,3,6]]
[[5,2,6][7,3,0][4,8,1]]
[[5,2,6][7,4,0][1,8,3]]
[[8,2,6][5,4,0][7,3,1]]
[[5,1,2][3,4,6][7,0,8]]
[[3,2,4][5,7,6][1,0,8]]
[[7,5,2][4,1,0][3,8,6]]
[[1,7,2][5,0,3][8,6,4]]
[[3,7,5][4,2,6][1,0,8]]
[[0,3,2][1,5,4][7,8,6]]
[[1,3,2][7,5,4][0,8,6]]
[[1,7,5][0,3,2][4,8,6]]
[[1,2,4][5,3,6][7,0,8]]
[[5,2,6][4,1,0][7,8,3]]
[[1,2,6][5,4,0][7,8,3]]
[[7,2,3][4,0,5][8,1,6]]
[[7,4,0][3,2,6][1,5,8]]
[[0,7,4][3,2,6][1,5,8]]
[[7,2,0][3,6,4][1,5,8]]
[[7,2,4][3,6,8][1,5,0]]
[[7,6,0][4,2,5][8,3,1]]
[[0,7,6][4,2,5][8,3,1]]
[[0,2,6][7,4,5][8,3,1]]
[[3,0,2][1,7,4][8,5,6]]
[[3,7,2][1,4,0][8,5,6]]
[[3,7,2][0,1,4][8,5,6]]
[[7,4,0][1,2,6][8,5,3]]
```

```
[[0,7,4][1,2,6][8,5,3]]
[[7,2,0][1,6,4][8,5,3]]
[[7,2,4][1,6,3][8,5,0]]
[[7,2,6][0,3,5][4,8,1]]
[[5,4,6][7,0,2][3,8,1]]
[[5,4,6][7,2,1][3,8,0]]
[[0,5,2][7,6,4][3,8,1]]
[[5,6,2][7,0,4][3,8,1]]
[[5,2,4][7,6,1][0,3,8]]
[[2,4,0][7,3,5][1,8,6]]
[[2,3,4][7,0,5][1,8,6]]
[[7,2,4][5,1,6][3,0,8]]
[[7,2,6][4,1,0][8,5,3]]
[[8,7,0][3,5,2][4,1,6]]
[[8,0,2][3,7,1][6,5,4]]
[[8,7,2][3,1,0][6,5,4]]
[[8,7,2][0,3,1][6,5,4]]
[[3,0,2][5,7,8][1,6,4]]
[[3,7,2][5,8,0][1,6,4]]
[[3,7,2][5,6,8][1,0,4]]
[[5,4,0][7,2,3][1,8,6]]
[[0,5,4][7,2,3][1,8,6]]
[[5,2,4][7,8,3][1,6,0]]
[[5,2,4][7,8,3][0,1,6]]
[[5,2,4][0,3,6][8,7,1]]
[[8,7,0][4,6,5][3,2,1]]
[[8,7,5][4,6,1][3,2,0]]
[[8,7,5][3,4,6][0,2,1]]
[[0,7,5][8,2,6][4,3,1]]
[[8,7,5][2,0,6][4,3,1]]
[[5,4,0][7,2,6][8,1,3]]
[[0,5,4][7,2,6][8,1,3]]
[[5,2,0][7,6,4][8,1,3]]
[[5,2,4][7,6,3][8,1,0]]
[[2,4,0][7,5,6][1,8,3]]
[[3,0,2][5,7,6][4,8,1]]
[[2,4,0][5,1,8][7,3,6]]
[[2,1,4][5,0,8][7,3,6]]
[[5,4,0][1,2,8][7,3,6]]
[[0,5,4][1,2,8][7,3,6]]
[[5,1,2][3,8,4][7,6,0]]
[[2,4,0][5,1,6][7,8,3]]
[[2,1,4][5,0,6][7,8,3]]
[[5,4,0][1,2,6][7,8,3]]
[[0,5,4][1,2,6][7,8,3]]
[[5,2,0][1,6,4][7,8,3]]
[[5,2,4][1,6,3][7,8,0]]
[[4,7,2][1,5,6][0,8,3]]
[[7,2,1][0,3,5][6,8,4]]
[[8,2,6][5,0,7][3,4,1]]
[[8,2,6][5,7,1][3,4,0]]
[[3,7,2][5,0,6][1,4,8]]
```

```
[[3,7,2][5,4,6][0,1,8]]
[[0,5,2][7,6,1][4,8,3]]
[[7,5,2][6,0,1][4,8,3]]
[[7,5,0][4,6,2][3,1,8]]
[[7,5,2][4,6,8][3,1,0]]
[[0,2,6][7,5,1][4,8,3]]
[[3,7,5][4,8,2][1,6,0]]
[[3,7,5][4,8,2][0,1,6]]
[[7,4,5][3,0,6][1,2,8]]
[[7,4,5][3,2,6][0,1,8]]
[[5,3,2][7,0,6][1,4,8]]
[[5,3,2][7,4,6][0,1,8]]
[[0,2,7][8,4,5][3,1,6]]
[[8,2,7][3,4,5][0,1,6]]
[[3,7,2][4,5,6][8,1,0]]
[[7,4,5][3,0,6][1,2,8]]
[[7,4,5][3,2,6][0,1,8]]
[[1,0,2][5,7,6][8,4,3]]
[[5,2,6][4,0,8][7,3,1]]
[[5,2,6][4,8,1][7,3,0]]
[[7,2,6][4,5,8][3,1,0]]
[[7,2,3][0,1,5][8,6,4]]
[[7,2,3][1,6,5][8,0,4]]
[[5,1,0][4,6,2][7,8,3]]
[[5,1,2][4,6,3][7,8,0]]
[[5,1,2][4,8,6][7,3,0]]
[[8,7,6][0,2,5][3,4,1]]
[[8,0,7][5,6,2][3,4,1]]
[[3,7,2][5,8,0][1,6,4]]
[[3,7,2][0,8,4][5,1,6]]
[[8,7,1][0,2,5][3,6,4]]
[[4,7,2][5,3,6][8,1,0]]
[[7,0,5][3,6,2][1,4,8]]
[[7,2,6][8,1,4][3,5,0]]
[[0,2,6][7,8,1][3,5,4]]
[[7,2,6][3,8,1][0,5,4]]
[[5,0,8][7,6,2][3,4,1]]
[[7,0,5][3,8,2][4,1,6]]
[[7,5,2][0,3,8][4,1,6]]
[[7,5,2][3,1,8][4,0,6]]
[[5,0,4][7,6,2][8,3,1]]
[[5,4,2][7,6,1][8,0,3]]
[[2,4,8][5,7,0][3,1,6]]
[[2,7,4][5,8,0][3,1,6]]
[[2,7,4][5,1,8][3,0,6]]
[[5,3,2][7,8,0][1,6,4]]
[[0,8,2][3,7,6][4,5,1]]
[[0,7,2][8,3,6][4,5,1]]
[[7,2,0][8,4,1][3,5,6]]
[[0,2,1][7,8,4][3,5,6]]
[[7,2,1][3,8,4][0,5,6]]
[[4,8,5][3,7,2][1,0,6]]
```

```
[[7,0,5][8,1,2][4,3,6]]
[[8,0,5][1,7,2][4,3,6]]
[[8,7,5][1,2,0][4,3,6]]
[[8,7,5][1,3,2][4,0,6]]
[[7,0,4][8,6,5][3,2,1]]
[[5,0,8][7,6,2][3,4,1]]
[[5,4,1][7,2,0][8,3,6]]
[[7,5,4][0,2,1][8,3,6]]
[[7,0,5][1,6,2][8,4,3]]
[[1,7,0][8,4,2][3,5,6]]
[[1,7,2][3,8,4][0,5,6]]
[[5,2,4][0,3,6][8,7,1]]
[[2,8,4][5,3,6][7,0,1]]
[[8,5,4][0,2,6][7,3,1]]
[[5,2,4][8,6,1][7,0,3]]
[[0,2,8][7,3,5][1,6,4]]
[[7,2,8][1,3,5][0,6,4]]
[[7,2,8][3,6,5][1,4,0]]
[[7,2,8][3,6,5][0,1,4]]
[[5,2,4][0,7,6][1,3,8]]
[[7,0,5][4,6,2][1,8,3]]
[[7,2,6][3,5,8][1,0,4]]
[[5,0,8][4,6,2][7,3,1]]
[[5,8,2][4,6,1][7,0,3]]
[[7,2,6][1,5,3][8,0,4]]
[[3,7,4][2,0,5][1,8,6]]
[[3,7,4][1,2,5][0,8,6]]
[[7,2,0][3,8,4][1,6,5]]
[[7,2,4][3,0,8][1,6,5]]
[[0,2,4][7,8,5][3,1,6]]
[[7,2,4][1,3,6][5,0,8]]
[[7,2,6][4,3,0][8,1,5]]
[[3,7,0][1,5,2][8,6,4]]
[[8,0,7][5,1,2][3,6,4]]
[[8,7,2][0,6,1][5,3,4]]
[[0,7,5][4,3,2][8,1,6]]
[[7,3,5][4,0,2][8,1,6]]
[[7,5,2][4,1,3][8,6,0]]
[[7,2,4][8,1,6][5,0,3]]
[[0,2,6][5,7,8][3,4,1]]
[[5,2,6][3,7,8][0,4,1]]
[[5,2,6][7,4,8][3,1,0]]
[[5,2,6][7,4,8][0,3,1]]
[[5,2,6][7,8,1][0,3,4]]
[[0,7,5][3,6,2][4,8,1]]
[[7,6,5][3,0,2][4,8,1]]
[[0,2,6][5,7,4][8,3,1]]
[[5,2,6][8,7,4][0,3,1]]
[[5,2,6][7,3,4][8,1,0]]
[[5,2,6][7,0,1][8,4,3]]
[[7,2,6][3,8,5][4,1,0]]
[[7,2,6][8,0,4][3,1,5]]
```

```
[[0,2,6][7,4,5][8,3,1]]
[[7,5,4][2,8,0][3,1,6]]
[[7,5,4][2,1,8][3,0,6]]
[[7,5,4][3,2,8][1,0,6]]
[[0,7,2][8,4,6][5,3,1]]
[[0,3,7][5,4,2][1,8,6]]
[[3,4,7][5,0,2][1,8,6]]
[[7,2,1][3,8,5][6,4,0]]
[[7,2,0][8,6,1][3,4,5]]
[[0,2,1][7,6,5][8,3,4]]
[[7,2,1][6,0,5][8,3,4]]
[[7,2,4][8,1,5][3,6,0]]
[[7,2,0][1,3,4][8,6,5]]
[[7,2,4][1,0,3][8,6,5]]
[[1,4,7][5,0,2][8,3,6]]
[[1,7,0][5,3,2][8,6,4]]
[[1,7,2][5,0,3][8,6,4]]
[[5,3,2][0,7,6][4,8,1]]
[[7,6,0][4,2,5][8,3,1]]
[[7,6,5][4,2,1][8,3,0]]
[[7,6,5][4,3,2][8,1,0]]
[[7,5,0][4,1,2][8,6,3]]
[[7,5,2][4,1,3][8,6,0]]
[[5,3,2][7,0,6][1,4,8]]
[[7,5,2][1,0,6][4,3,8]]
[[5,4,2][7,0,6][3,1,8]]
[[8,0,5][6,7,2][3,4,1]]
[[8,7,5][6,2,0][3,4,1]]
[[8,7,5][6,4,2][3,0,1]]
[[8,7,5][3,6,2][4,0,1]]
[[7,6,5][8,2,1][3,0,4]]
[[6,0,5][7,8,2][3,4,1]]
[[7,6,5][3,8,2][4,0,1]]
[[7,6,5][8,4,0][3,1,2]]
[[7,6,5][0,4,2][8,3,1]]
[[8,5,2][3,7,0][1,4,6]]
[[3,8,5][0,7,2][1,4,6]]
[[8,0,7][3,2,5][1,4,6]]
[[7,0,5][8,3,2][1,4,6]]
[[8,7,5][1,3,2][4,0,6]]
[[8,0,7][3,4,5][1,6,2]]
[[8,0,5][3,7,4][1,6,2]]
[[8,7,5][0,3,4][1,6,2]]
[[8,7,5][3,6,4][1,0,2]]
[[8,0,4][2,7,5][3,1,6]]
[[8,7,4][2,1,5][3,0,6]]
[[8,7,4][3,2,5][1,0,6]]
[[4,5,2][0,7,8][3,1,6]]
[[4,5,2][7,1,8][3,0,6]]
[[4,0,8][7,2,5][3,1,6]]
[[4,8,5][3,7,2][1,0,6]]
[[4,8,5][7,1,0][3,6,2]]
```

```
[[7,0,4][3,8,5][1,6,2]]
[[7,0,5][3,4,8][1,6,2]]
[[7,4,5][0,3,8][1,6,2]]
[[7,4,5][3,6,8][1,0,2]]
[[8,7,4][0,1,5][3,6,2]]
[[7,1,4][0,8,5][3,6,2]]
[[7,1,4][8,6,5][3,0,2]]
[[7,5,1][8,4,0][3,6,2]]
[[8,7,5][0,4,1][3,6,2]]
[[4,0,5][7,8,1][3,6,2]]
[[7,4,5][3,8,1][6,0,2]]
[[7,4,5][0,6,1][8,3,2]]
[[4,5,2][7,1,0][8,3,6]]
[[4,1,5][7,2,0][8,3,6]]
[[4,1,5][0,7,2][8,3,6]]
[[4,1,5][7,3,2][8,0,6]]
[[7,4,5][1,3,0][8,6,2]]
[[7,5,8][3,4,2][1,0,6]]
[[4,0,8][5,7,2][3,1,6]]
[[5,4,8][3,7,2][1,0,6]]
[[5,4,8][7,1,0][3,6,2]]
[[8,0,7][5,4,2][3,1,6]]
[[8,7,2][0,1,4][5,3,6]]
[[3,5,2][0,8,4][1,7,6]]
[[5,0,8][3,4,2][1,7,6]]
[[8,0,2][5,3,4][1,7,6]]
[[5,0,8][3,7,2][1,6,4]]
[[5,0,2][3,8,7][1,6,4]]
[[5,8,2][0,3,7][1,6,4]]
[[5,8,2][3,6,7][1,0,4]]
[[7,5,8][0,1,2][3,6,4]]
[[5,1,8][7,2,0][3,6,4]]
[[5,1,8][0,7,2][3,6,4]]
[[5,1,8][7,6,2][3,0,4]]
[[5,8,2][3,7,1][6,0,4]]
[[3,0,5][8,7,2][1,6,4]]
[[3,7,5][8,2,0][1,6,4]]
[[3,7,5][8,6,2][1,0,4]]
[[3,7,5][1,8,2][6,0,4]]
[[7,0,8][3,2,5][1,6,4]]
[[7,8,5][3,2,4][1,0,6]]
[[8,0,5][7,3,2][1,6,4]]
[[7,8,5][1,3,2][6,0,4]]
[[7,8,5][3,6,0][1,4,2]]
[[7,8,5][0,6,2][3,1,4]]
[[5,3,2][7,8,0][1,6,4]]
[[5,3,2][0,7,8][1,6,4]]
[[5,3,2][7,6,8][1,0,4]]
[[7,5,2][1,8,0][6,3,4]]
[[7,5,2][0,1,8][6,3,4]]
[[7,5,2][1,3,0][6,4,8]]
[[7,0,5][3,6,2][1,4,8]]
```

```
[[5,0,2][7,6,8][3,1,4]]
[[7,5,2][6,8,0][3,1,4]]
[[7,5,2][6,1,8][3,0,4]]
[[8,5,2][1,7,0][3,6,4]]
[[8,0,7][1,2,5][3,6,4]]
[[8,7,5][1,2,4][3,0,6]]
[[8,7,5][1,6,0][3,4,2]]
[[8,7,5][0,6,2][1,3,4]]
[[8,0,5][3,7,2][6,1,4]]
[[8,7,5][3,2,0][6,1,4]]
[[8,7,5][0,3,2][6,1,4]]
[[8,7,5][3,1,0][6,4,2]]
[[8,7,1][0,2,5][3,6,4]]
[[7,0,5][8,1,4][3,2,6]]
[[7,1,5][8,4,0][3,2,6]]
[[7,1,5][0,8,4][3,2,6]]
[[7,1,5][0,2,4][8,3,6]]
[[7,1,5][3,8,0][6,4,2]]
[[7,0,1][8,6,5][3,4,2]]
[[7,0,5][6,1,2][8,3,4]]
[[7,1,5][6,2,0][8,3,4]]
[[7,1,5][6,3,2][8,0,4]]
[[5,8,2][3,7,1][6,0,4]]
[[7,0,5][3,8,2][6,4,1]]
[[7,5,2][0,3,8][6,4,1]]
[[7,5,2][3,4,8][6,0,1]]
[[5,6,2][7,1,0][8,3,4]]
[[5,6,2][0,7,1][8,3,4]]
[[5,6,2][7,3,1][8,0,4]]
[[7,0,5][6,1,2][8,3,4]]
[[7,5,2][6,1,4][8,0,3]]
[[7,5,2][6,3,0][8,4,1]]
[[7,5,1][0,4,2][8,3,6]]
[[5,4,1][7,2,0][8,3,6]]
[[5,4,1][0,7,2][8,3,6]]
[[5,4,1][7,3,2][8,0,6]]
[[5,0,2][8,1,4][3,7,6]]
[[5,1,2][8,4,0][3,7,6]]
[[5,1,2][0,8,4][3,7,6]]
[[5,1,2][8,7,0][3,6,4]]
[[5,0,1][7,3,2][8,6,4]]
[[5,0,2][7,1,3][8,6,4]]
[[5,1,2][0,7,3][8,6,4]]
[[5,1,2][7,6,3][8,0,4]]
[[7,4,5][1,3,0][8,6,2]]
[[7,3,5][1,2,0][8,6,4]]
[[7,3,5][0,1,2][8,6,4]]
[[7,3,5][1,6,2][8,0,4]]
[[5,0,2][7,1,3][8,6,4]]
[[7,5,2][8,1,3][6,0,4]]
[[5,8,2][3,0,6][4,7,1]]
[[5,8,2][3,7,6][4,1,0]]
```

```
[[5,4,2][8,0,6][3,7,1]]
[[5,4,2][8,7,6][3,1,0]]
[[0,2,4][5,3,8][1,7,6]]
[[5,2,4][1,3,8][0,7,6]]
[[5,2,0][3,7,4][1,6,8]]
[[5,2,4][3,0,7][1,6,8]]
[[0,2,4][5,7,1][3,6,8]]
[[5,2,4][3,7,1][0,6,8]]
[[5,2,4][7,6,1][0,3,8]]
[[4,5,0][7,3,2][1,8,6]]
[[4,3,5][7,0,2][1,8,6]]
[[8,7,0][3,5,2][6,4,1]]
[[8,5,2][4,1,7][3,6,0]]
[[8,5,2][4,1,7][0,3,6]]
[[0,8,7][4,1,5][3,6,2]]
[[8,1,7][4,0,5][3,6,2]]
[[8,5,0][4,7,1][3,6,2]]
[[0,8,5][4,7,1][3,6,2]]
[[8,7,5][4,6,1][3,2,0]]
[[8,7,5][4,6,1][0,3,2]]
[[8,7,5][3,4,6][0,2,1]]
[[4,5,0][7,8,6][3,2,1]]
[[4,8,5][7,0,6][3,2,1]]
[[7,4,5][3,8,6][2,1,0]]
[[4,5,0][7,2,6][8,3,1]]
[[7,5,0][2,4,6][8,3,1]]
[[0,7,5][2,4,6][8,3,1]]
[[7,4,5][2,3,6][8,1,0]]
[[5,8,2][3,0,6][4,7,1]]
[[5,8,2][3,7,6][4,1,0]]
[[5,2,4][8,0,1][3,7,6]]
[[5,2,4][8,7,1][3,6,0]]
[[5,2,0][7,3,4][8,6,1]]
[[5,2,4][7,0,3][8,6,1]]
[[7,5,2][8,0,6][4,1,3]]
[[7,5,2][8,1,6][4,3,0]]
[[1,0,7][8,5,2][3,6,4]]
[[8,1,0][5,4,2][7,3,6]]
[[8,1,2][5,3,4][7,6,0]]
[[0,5,8][1,4,2][7,3,6]]
[[5,4,8][1,0,2][7,3,6]]
[[5,8,0][1,3,2][7,6,4]]
[[5,8,2][1,0,3][7,6,4]]
[[3,7,2][1,5,8][6,4,0]]
[[5,3,2][0,7,6][4,8,1]]
[[5,2,4][8,7,6][1,0,3]]
[[5,4,2][0,7,6][1,8,3]]
[[7,2,8][0,5,4][3,1,6]]
[[3,7,2][1,5,6][4,0,8]]
[[4,5,0][7,3,2][1,8,6]]
[[4,3,5][7,0,2][1,8,6]]
[[8,2,4][5,1,7][3,6,0]]
```

```
[[8,2,4][5,1,7][0,3,6]]
[[0,2,1][5,7,8][3,6,4]]
[[5,2,1][3,7,8][0,6,4]]
[[5,2,1][7,6,8][3,4,0]]
[[5,2,1][7,6,8][0,3,4]]
[[5,2,1][7,8,4][0,3,6]]
[[0,7,5][3,1,2][6,8,4]]
[[5,3,2][7,0,1][6,8,4]]
[[0,1,2][5,7,6][8,4,3]]
[[5,1,2][8,7,6][0,4,3]]
[[5,2,4][1,3,0][7,6,8]]
[[8,4,2][5,3,6][7,0,1]]
[[3,5,2][0,1,4][7,8,6]]
[[5,0,1][3,4,2][7,8,6]]
[[1,2,4][5,3,7][8,0,6]]
[[1,0,2][5,7,6][8,4,3]]
[[1,0,2][3,7,4][5,8,6]]
[[1,7,2][3,4,0][5,8,6]]
[[8,7,2][3,5,4][1,6,0]]
[[1,5,2][7,0,8][3,6,4]]
[[1,5,2][7,8,4][3,6,0]]
[[1,8,0][7,2,5][3,6,4]]
[[1,8,5][7,2,4][3,6,0]]
[[1,8,5][3,7,2][0,6,4]]
[[1,8,5][7,6,2][3,4,0]]
[[1,8,5][7,6,2][0,3,4]]
[[6,7,2][8,5,1][0,3,4]]
[[1,7,5][8,0,2][3,4,6]]
[[1,7,5][8,4,2][3,6,0]]
[[3,5,2][4,7,0][1,8,6]]
[[3,0,7][4,2,5][1,8,6]]
[[8,2,7][4,1,0][3,6,5]]
[[8,2,4][5,3,1][7,0,6]]
[[5,0,2][1,8,6][7,4,3]]
[[5,8,2][0,1,6][7,4,3]]
[[8,2,4][0,7,6][5,3,1]]
[[1,7,2][8,5,6][4,3,0]]
[[1,3,0][5,4,2][7,8,6]]
[[7,2,1][6,5,4][8,0,3]]
[[1,5,2][4,7,0][8,3,6]]
[[1,0,7][4,2,5][8,3,6]]
[[1,7,5][4,3,0][8,6,2]]
[[4,3,2][5,0,6][7,8,1]]
[[0,5,2][3,4,6][7,8,1]]
[[8,2,1][5,0,7][3,6,4]]
[[8,2,1][5,7,4][3,6,0]]
[[5,4,8][7,0,6][3,2,1]]
[[5,4,8][7,2,6][0,3,1]]
[[8,7,5][3,0,6][1,2,4]]
[[8,7,5][3,2,6][0,1,4]]
[[4,5,2][7,8,6][0,3,1]]
[[4,8,5][7,0,6][3,2,1]]
```

```
[[4,8,5][7,2,6][0,3,1]]
[[7,4,5][1,0,6][8,2,3]]
[[7,5,0][4,2,8][3,1,6]]
[[7,5,8][4,1,2][3,6,0]]
[[7,5,8][4,1,2][0,3,6]]
[[5,4,8][7,0,6][3,2,1]]
[[5,4,8][7,2,6][0,3,1]]
[[5,8,2][3,0,6][1,4,7]]
[[5,8,2][3,4,6][0,1,7]]
[[5,2,8][7,0,3][1,6,4]]
[[5,2,8][7,3,4][1,6,0]]
[[0,7,5][3,1,2][6,8,4]]
[[7,1,0][3,2,5][6,8,4]]
[[7,1,5][3,2,4][6,8,0]]
[[0,1,5][7,3,2][6,8,4]]
[[7,1,5][6,3,2][0,8,4]]
[[7,5,0][8,1,6][3,4,2]]
[[0,7,5][8,1,6][3,4,2]]
[[0,1,5][7,8,6][3,4,2]]
[[7,1,5][3,8,6][0,4,2]]
[[7,1,5][8,4,6][3,2,0]]
[[7,1,5][8,4,6][0,3,2]]
[[5,2,1][7,6,4][8,3,0]]
[[7,4,5][1,0,6][8,2,3]]
[[0,5,2][7,6,3][1,8,4]]
[[7,5,2][6,0,3][1,8,4]]
[[7,5,3][0,4,2][1,8,6]]
[[5,4,3][7,2,0][1,8,6]]
[[5,4,3][0,7,2][1,8,6]]
[[1,5,2][8,4,0][7,3,6]]
[[1,5,2][8,3,4][7,0,6]]
[[8,2,4][3,5,7][1,0,6]]
[[1,2,4][5,0,6][8,7,3]]
[[1,7,2][8,5,3][6,0,4]]
[[8,2,4][5,0,6][7,1,3]]
[[1,7,5][4,0,6][8,2,3]]
[[7,2,1][4,5,3][8,6,0]]
[[7,8,2][4,5,0][3,1,6]]
[[1,7,4][2,0,5][8,3,6]]
[[1,7,4][8,2,5][0,3,6]]
[[4,7,2][0,3,6][5,8,1]]
[[0,7,2][3,5,8][4,1,6]]
[[0,7,4][2,5,8][3,1,6]]
[[2,7,4][3,5,8][0,1,6]]
[[0,3,2][5,8,4][7,1,6]]
[[5,3,2][8,0,4][7,1,6]]
[[8,7,2][4,3,6][5,0,1]]
[[7,2,1][8,4,6][3,0,5]]
[[1,2,4][8,7,0][3,5,6]]
[[1,7,2][8,4,6][3,0,5]]
[[0,7,4][2,5,6][3,8,1]]
[[2,7,4][3,5,6][0,8,1]]
```

```
[[0,8,4][2,5,6][7,3,1]]
[[0,2,4][5,3,6][7,1,8]]
[[5,2,4][3,0,6][7,1,8]]
[[5,2,6][7,1,0][3,8,4]]
[[5,2,6][0,7,1][3,8,4]]
[[7,4,0][2,5,8][3,1,6]]
[[0,7,4][2,5,8][3,1,6]]
[[8,0,2][4,7,6][5,3,1]]
[[8,7,2][4,3,6][5,0,1]]
[[7,2,1][0,8,6][3,4,5]]
[[7,2,1][8,4,6][3,0,5]]
[[7,4,0][2,5,6][3,8,1]]
[[0,7,4][2,5,6][3,8,1]]
[[8,7,0][2,5,4][3,1,6]]
[[0,4,2][7,5,8][3,1,6]]
[[4,8,5][1,0,2][7,3,6]]
[[7,1,0][8,5,4][3,6,2]]
[[7,1,4][8,5,2][3,6,0]]
[[0,4,8][5,1,2][7,3,6]]
[[5,4,8][1,0,2][7,3,6]]
[[0,8,2][5,6,1][7,3,4]]
[[5,8,2][6,0,1][7,3,4]]
[[0,7,2][1,5,8][6,3,4]]
[[0,7,2][6,5,8][3,1,4]]
[[1,8,5][3,7,2][0,6,4]]
[[1,5,0][7,6,2][8,3,4]]
[[1,6,5][7,0,2][8,3,4]]
[[0,8,2][5,6,1][7,3,4]]
[[5,8,2][6,0,1][7,3,4]]
[[0,7,2][3,5,8][6,4,1]]
[[1,7,5][3,0,2][8,6,4]]
[[1,7,5][8,3,2][0,6,4]]
[[5,2,4][3,8,6][1,0,7]]
[[7,0,5][3,4,6][2,8,1]]
[[7,4,5][0,3,6][2,8,1]]
[[4,2,5][0,7,6][8,3,1]]
[[4,2,5][7,3,6][8,0,1]]
[[7,4,5][0,3,6][2,8,1]]
[[8,1,2][5,4,6][7,0,3]]
[[5,2,1][7,4,0][3,8,6]]
[[5,2,1][0,7,4][3,8,6]]
[[5,2,1][7,3,0][6,8,4]]
[[0,4,2][8,5,6][7,3,1]]
[[0,2,4][3,5,7][1,8,6]]
[[3,2,4][1,5,7][0,8,6]]
[[1,2,4][8,5,7][0,3,6]]
[[0,8,2][4,5,6][3,7,1]]
[[0,2,4][8,5,1][7,3,6]]
[[0,2,4][8,5,6][3,7,1]]
[[8,2,4][3,5,6][0,7,1]]
[[7,2,3][0,5,4][1,8,6]]
[[4,5,2][0,7,6][3,8,1]]
```

```
[[7,4,5][0,2,6][1,8,3]]
[[7,5,8][4,2,6][3,0,1]]
[[5,2,4][3,8,6][1,0,7]]
[[5,2,1][0,7,6][8,3,4]]
[[5,2,1][7,3,6][8,0,4]]
[[7,4,5][0,2,6][1,8,3]]
[[1,2,4][0,7,6][5,8,3]]
[[1,0,2][4,7,6][5,8,3]]
[[7,2,8][3,5,0][4,1,6]]
[[0,2,6][5,3,4][7,8,1]]
[[5,2,6][3,0,4][7,8,1]]
[[0,2,6][5,4,1][7,8,3]]
[[8,7,4][2,5,6][3,0,1]]
[[4,2,8][7,5,0][3,1,6]]
[[8,0,5][4,1,2][7,3,6]]
[[7,2,8][1,5,0][6,3,4]]
[[7,2,8][6,5,0][3,1,4]]
[[7,2,8][3,5,0][6,4,1]]
[[0,4,2][7,5,6][3,8,1]]
[[1,2,4][8,5,0][7,3,6]]
[[1,2,4][8,5,0][7,3,6]]
[[5,2,6][4,1,0][7,8,3]]
[[3,2,0][1,7,4][8,5,6]]
[[3,7,2][1,4,6][8,5,0]]
[[1,7,4][0,2,6][8,5,3]]
[[5,2,4][0,6,1][7,3,8]]
[[2,3,4][7,5,0][1,8,6]]
[[7,2,4][5,1,6][3,8,0]]
[[7,2,0][4,1,6][8,5,3]]
[[8,2,0][3,7,1][6,5,4]]
[[3,2,0][5,7,8][1,6,4]]
[[5,4,3][7,2,0][1,8,6]]
[[5,2,4][0,8,3][7,1,6]]
[[3,2,0][5,7,6][4,8,1]]
[[2,1,4][0,5,8][7,3,6]]
[[1,5,4][0,2,8][7,3,6]]
[[2,1,4][0,5,6][7,8,3]]
[[1,5,4][0,2,6][7,8,3]]
[[8,2,6][0,5,7][3,4,1]]
[[7,0,2][6,5,1][4,8,3]]
[[5,3,2][0,4,6][7,1,8]]
[[1,2,0][5,7,6][8,4,3]]
[[7,2,3][1,6,5][0,8,4]]
[[7,5,2][4,3,8][0,1,6]]
[[5,4,2][7,6,1][0,8,3]]
[[2,4,8][5,7,6][3,1,0]]
[[2,7,4][5,8,6][3,1,0]]
[[8,7,5][1,2,6][4,3,0]]
[[5,4,1][7,2,6][8,3,0]]
[[7,2,6][1,5,3][0,8,4]]
[[3,7,4][2,5,0][1,8,6]]
[[7,2,4][1,3,6][5,8,0]]
```

```
[[7,2,0][4,3,6][8,1,5]]
[[5,2,6][0,4,8][7,3,1]]
[[5,2,6][0,8,1][7,3,4]]
[[7,5,4][2,8,6][3,1,0]]
[[3,4,7][0,5,2][1,8,6]]
[[1,4,7][0,5,2][8,3,6]]
[[5,3,2][4,7,6][0,8,1]]
[[7,0,2][1,5,6][4,3,8]]
[[8,5,2][3,7,6][1,4,0]]
[[8,2,7][3,0,5][1,4,6]]
[[0,5,2][4,7,8][3,1,6]]
[[4,2,8][7,0,5][3,1,6]]
[[7,4,5][3,0,1][6,8,2]]
[[4,5,2][7,1,6][8,3,0]]
[[4,1,5][7,2,6][8,3,0]]
[[4,1,5][7,3,2][0,8,6]]
[[8,2,0][5,3,4][1,7,6]]
[[5,2,0][3,8,7][1,6,4]]
[[3,7,5][1,0,2][6,8,4]]
[[7,8,5][3,0,6][1,4,2]]
[[5,2,0][7,6,8][3,1,4]]
[[8,2,7][1,0,5][3,6,4]]
[[8,7,5][1,0,6][3,4,2]]
[[7,1,5][8,4,6][3,2,0]]
[[7,1,5][6,3,2][0,8,4]]
[[5,6,2][7,3,1][0,8,4]]
[[7,5,2][6,1,4][0,8,3]]
[[7,5,1][4,0,2][8,3,6]]
[[5,4,1][7,2,6][8,3,0]]
[[5,4,1][7,3,2][0,8,6]]
[[5,2,0][8,1,4][3,7,6]]
[[5,1,2][8,4,6][3,7,0]]
[[5,2,0][7,1,3][8,6,4]]
[[5,1,2][7,6,3][0,8,4]]
[[7,3,5][1,6,2][0,8,4]]
[[5,2,0][7,1,3][8,6,4]]
[[5,2,4][0,6,1][7,3,8]]
[[8,1,7][4,5,0][3,6,2]]
[[7,0,2][8,5,6][4,1,3]]
[[1,5,8][0,4,2][7,3,6]]
[[5,3,2][4,7,6][0,8,1]]
[[3,7,2][1,5,6][4,8,0]]
[[5,2,1][0,6,8][7,3,4]]
[[5,2,1][0,8,4][7,3,6]]
[[1,2,4][5,3,7][0,8,6]]
[[1,2,0][5,7,6][8,4,3]]
[[1,2,0][3,7,4][5,8,6]]
[[1,7,2][3,4,6][5,8,0]]
[[1,0,2][7,5,8][3,6,4]]
[[1,8,5][0,6,2][7,3,4]]
[[3,5,2][4,7,6][1,8,0]]
[[3,2,7][4,0,5][1,8,6]]
```

```
[[5,2,0][1,8,6][7,4,3]]
[[1,0,3][5,4,2][7,8,6]]
[[7,2,1][6,5,4][0,8,3]]
[[1,5,2][4,7,6][8,3,0]]
[[1,2,7][4,0,5][8,3,6]]
[[4,3,2][0,5,6][7,8,1]]
[[8,2,1][0,5,7][3,6,4]]
[[5,4,8][0,2,6][7,3,1]]
[[4,8,5][0,2,6][7,3,1]]
[[5,4,8][0,2,6][7,3,1]]
[[1,0,5][7,3,2][6,8,4]]
[[1,0,5][7,8,6][3,4,2]]
[[7,0,2][6,5,3][1,8,4]]
[[7,5,3][4,0,2][1,8,6]]
[[5,4,3][7,2,6][1,8,0]]
[[1,5,2][8,4,6][7,3,0]]
[[1,2,4][0,5,6][8,7,3]]
[[8,2,4][0,5,6][7,1,3]]
[[7,8,2][4,5,6][3,1,0]]
[[1,7,4][2,5,0][8,3,6]]
[[0,7,2][4,3,6][5,8,1]]
[[1,2,4][8,7,6][3,5,0]]
[[5,2,0][7,1,6][3,8,4]]
[[8,2,0][4,7,6][5,3,1]]
[[1,7,2][0,5,8][6,3,4]]
[[5,2,4][3,0,6][1,8,7]]
[[0,2,5][4,7,6][8,3,1]]
[[4,2,5][7,3,6][0,8,1]]
[[5,2,1][7,4,6][3,8,0]]
[[8,2,4][3,5,6][7,0,1]]
[[0,5,2][4,7,6][3,8,1]]
[[5,2,4][3,0,6][1,8,7]]
[[5,2,1][7,3,6][0,8,4]]
[[1,2,0][4,7,6][5,8,3]]
[[7,2,8][3,5,6][4,1,0]]
[[4,2,8][7,5,6][3,1,0]]
[[1,2,4][8,5,6][7,3,0]]
[[1,2,4][8,5,6][7,3,0]]
[[2,3,4][7,5,6][1,8,0]]
[[5,4,3][7,2,6][1,8,0]]
[[7,2,0][6,5,1][4,8,3]]
[[5,3,2][4,0,6][7,1,8]]
[[5,4,2][0,6,1][7,8,3]]
[[3,7,4][2,5,6][1,8,0]]
[[7,2,0][1,5,6][4,3,8]]
[[8,2,7][3,5,0][1,4,6]]
[[4,1,5][0,3,2][7,8,6]]
[[8,2,7][1,5,0][3,6,4]]
[[5,6,2][0,3,1][7,8,4]]
[[7,0,1][4,5,2][8,3,6]]
[[5,4,1][0,3,2][7,8,6]]
[[5,2,3][7,1,0][8,6,4]]
```

```
[[5,1,2][0,6,3][7,8,4]]
[[5,2,3][7,1,0][8,6,4]]
[[7,2,0][8,5,6][4,1,3]]
[[1,5,8][4,0,2][7,3,6]]
[[1,2,0][7,5,8][3,6,4]]
[[3,2,7][4,5,0][1,8,6]]
[[1,2,7][4,5,0][8,3,6]]
[[0,3,2][4,5,6][7,8,1]]
[[0,8,5][4,2,6][7,3,1]]
[[7,2,0][6,5,3][1,8,4]]
[[7,0,3][4,5,2][1,8,6]]
[[1,7,4][2,5,6][8,3,0]]
[[4,2,5][0,3,6][7,8,1]]
[[5,2,1][0,3,6][7,8,4]]
[[8,2,7][3,5,6][1,4,0]]
[[0,1,5][4,3,2][7,8,6]]
[[1,0,8][4,5,2][7,3,6]]
[[3,2,7][4,5,6][1,8,0]]
[[1,2,7][4,5,6][8,3,0]]
[[7,2,3][6,5,0][1,8,4]]
[[0,2,5][4,3,6][7,8,1]]
[[1,0,5][4,3,2][7,8,6]]
[[7,0,6][3,2,5][4,8,1]]
[[7,2,6][3,8,5][4,0,1]]
[[7,0,4][5,2,6][3,1,8]]
[[7,2,4][5,6,0][3,1,8]]
[[7,0,6][4,2,1][8,5,3]]
[[7,2,6][0,4,1][8,5,3]]
[[8,7,2][3,0,5][4,1,6]]
[[2,5,4][7,0,6][1,8,3]]
[[3,7,2][5,6,0][4,8,1]]
[[3,7,2][5,8,6][4,0,1]]
[[5,1,2][3,8,4][0,7,6]]
[[5,8,2][0,3,6][4,7,1]]
[[5,2,4][1,8,6][0,7,3]]
[[4,7,2][5,0,6][1,8,3]]
[[7,0,1][3,2,5][6,8,4]]
[[7,2,1][3,8,5][6,0,4]]
[[7,2,6][5,0,1][4,8,3]]
[[3,7,2][4,0,6][8,5,1]]
[[1,7,2][5,6,0][8,4,3]]
[[7,2,6][4,0,5][3,1,8]]
[[7,0,3][1,2,5][8,6,4]]
[[5,1,2][4,8,6][0,7,3]]
[[0,1,2][8,7,4][3,5,6]]
[[0,7,2][1,8,4][3,5,6]]
[[2,4,6][5,7,0][3,8,1]]
[[2,7,4][5,6,0][3,8,1]]
[[2,7,4][5,8,6][3,0,1]]
[[5,0,4][3,2,6][8,7,1]]
[[5,2,4][3,6,0][8,7,1]]
[[5,2,4][3,7,0][8,1,6]]
```

```
[[2,4,6][5,8,0][7,3,1]]
[[2,8,4][5,6,0][7,3,1]]
[[5,4,6][8,2,0][7,3,1]]
[[5,0,2][8,6,4][7,3,1]]
[[5,0,4][7,2,6][1,3,8]]
[[5,2,4][7,6,0][1,3,8]]
[[7,5,2][4,6,3][1,0,8]]
[[7,5,2][4,8,0][1,3,6]]
[[7,5,2][0,8,6][4,1,3]]
[[7,2,6][4,5,3][1,0,8]]
[[2,0,4][7,3,6][1,5,8]]
[[3,7,2][1,0,5][8,6,4]]
[[2,0,4][7,1,6][8,5,3]]
[[4,7,2][8,5,0][3,1,6]]
[[0,1,7][5,4,2][8,3,6]]
[[5,3,2][7,6,0][4,8,1]]
[[5,3,2][7,8,6][4,0,1]]
[[7,5,4][2,6,0][3,8,1]]
[[7,5,4][2,8,6][3,0,1]]
[[7,5,4][3,2,6][8,0,1]]
[[2,0,6][7,5,1][8,3,4]]
[[8,7,2][3,0,5][6,4,1]]
[[2,0,1][7,5,4][8,3,6]]
[[8,1,2][5,3,4][0,7,6]]
[[3,7,2][1,0,8][6,5,4]]
[[5,3,2][7,6,0][4,8,1]]
[[5,3,2][7,8,6][4,0,1]]
[[2,0,4][5,7,3][1,8,6]]
[[5,2,4][1,7,3][8,0,6]]
[[8,5,6][4,7,0][3,2,1]]
[[4,8,5][0,7,6][3,2,1]]
[[2,0,4][5,7,6][8,1,3]]
[[5,4,2][7,6,0][1,8,3]]
[[5,4,2][7,8,6][1,0,3]]
[[8,4,2][5,6,0][7,3,1]]
[[3,7,2][6,5,1][8,0,4]]
[[3,0,4][5,2,7][1,8,6]]
[[3,2,4][5,8,7][1,0,6]]
[[1,0,4][5,2,7][8,3,6]]
[[1,7,2][5,6,0][8,4,3]]
[[1,7,2][3,8,4][5,0,6]]
[[7,5,2][0,1,6][4,3,8]]
[[8,7,2][3,0,4][1,5,6]]
[[6,7,2][5,0,1][8,3,4]]
[[4,3,5][0,7,2][1,8,6]]
[[8,5,2][4,6,0][3,7,1]]
[[8,5,2][0,4,6][3,7,1]]
[[8,5,2][0,7,6][4,3,1]]
[[8,2,7][0,1,5][4,3,6]]
[[8,0,4][5,2,1][7,3,6]]
[[5,8,2][1,6,0][7,4,3]]
[[8,0,4][5,2,6][3,7,1]]
```

```
[[8,2,4][5,6,0][3,7,1]]
[[1,7,2][8,0,6][4,5,3]]
[[1,0,4][5,2,3][7,8,6]]
[[1,2,4][5,8,3][7,0,6]]
[[7,2,3][1,0,4][8,5,6]]
[[8,2,7][0,5,6][4,3,1]]
[[4,5,2][0,1,6][7,8,3]]
[[4,7,2][0,5,3][8,1,6]]
[[4,7,2][0,5,1][8,6,3]]
[[5,4,3][7,8,2][1,0,6]]
[[4,8,2][0,5,7][3,1,6]]
[[2,0,4][8,5,7][3,1,6]]
[[5,2,4][1,8,6][0,7,3]]
[[0,7,2][1,4,6][5,8,3]]
[[8,2,4][5,1,6][0,7,3]]
[[5,2,4][1,8,6][0,7,3]]
[[1,4,2][5,6,0][7,8,3]]
[[1,4,2][5,8,6][7,0,3]]
[[7,2,1][4,0,5][8,6,3]]
[[4,7,8][0,5,2][3,1,6]]
[[7,2,3][4,0,6][8,5,1]]
[[4,2,6][5,7,0][8,3,1]]
[[7,0,2][8,1,6][3,5,4]]
[[8,2,6][3,7,0][4,5,1]]
[[2,8,4][7,5,6][0,3,1]]
[[7,5,2][0,1,3][4,8,6]]
[[5,0,6][7,2,1][3,8,4]]
[[7,0,2][8,4,6][3,1,5]]
[[8,7,2][4,6,0][5,3,1]]
[[7,0,1][8,2,6][3,4,5]]
[[7,6,5][0,3,2][4,8,1]]
[[5,2,6][7,3,0][1,4,8]]
[[7,5,2][1,3,0][4,8,6]]
[[5,2,6][7,4,0][3,1,8]]
[[4,2,6][5,7,0][8,3,1]]
[[7,4,5][3,6,0][2,8,1]]
[[4,2,5][7,6,0][8,3,1]]
[[5,2,6][7,1,0][8,4,3]]
[[5,0,1][7,2,4][3,8,6]]
[[5,2,6][7,1,0][8,4,3]]
[[8,4,2][7,5,6][0,3,1]]
[[0,2,4][1,5,7][8,3,6]]
[[8,2,4][7,5,1][0,3,6]]
[[1,3,2][5,4,6][7,0,8]]
[[4,2,6][5,3,0][7,8,1]]
[[5,2,6][3,4,0][7,8,1]]
[[5,2,4][3,1,6][7,0,8]]
[[0,2,4][1,5,3][7,8,6]]
[[1,2,4][7,5,3][0,8,6]]
[[4,5,2][7,6,0][3,8,1]]
[[5,0,1][7,2,6][8,3,4]]
[[5,2,4][3,1,6][7,0,8]]
```

```
[[1,7,2][4,6,0][5,8,3]]
[[1,7,2][4,8,6][5,0,3]]
[[1,7,5][0,2,6][4,8,3]]
[[0,4,2][1,5,6][7,8,3]]
[[1,4,2][7,5,6][0,8,3]]
[[7,2,3][0,5,6][4,8,1]]
[[8,2,6][4,5,0][3,7,1]]
[[5,0,6][4,2,1][7,8,3]]
[[5,2,6][4,8,1][7,0,3]]
[[4,2,6][7,5,0][3,8,1]]
[[4,7,0][5,6,2][8,3,1]]
[[4,7,2][5,6,1][8,3,0]]
[[7,6,0][8,2,1][3,5,4]]
[[0,7,6][8,2,1][3,5,4]]
[[8,7,0][3,6,2][4,5,1]]
[[8,7,2][3,6,1][4,5,0]]
[[7,1,0][8,2,4][3,5,6]]
[[0,7,1][8,2,4][3,5,6]]
[[7,4,0][5,2,6][1,8,3]]
[[0,7,4][5,2,6][1,8,3]]
[[7,2,0][5,6,4][1,8,3]]
[[7,2,4][5,6,3][1,8,0]]
[[7,2,4][5,8,6][1,3,0]]
[[7,2,4][5,8,6][0,1,3]]
[[0,7,8][3,2,5][1,6,4]]
[[7,2,6][0,3,5][1,4,8]]
[[7,2,6][3,4,5][1,0,8]]
[[7,2,6][0,1,5][8,4,3]]
[[7,2,6][1,4,5][8,0,3]]
[[0,5,2][7,4,3][8,1,6]]
[[7,5,2][8,4,3][0,1,6]]
[[5,6,0][7,2,8][3,4,1]]
[[0,5,6][7,2,8][3,4,1]]
[[7,5,2][3,0,1][4,6,8]]
[[7,5,2][3,6,1][0,4,8]]
[[5,6,0][7,2,4][8,3,1]]
[[0,5,6][7,2,4][8,3,1]]
[[7,2,6][3,5,1][0,4,8]]
[[2,6,0][7,8,5][3,4,1]]
[[2,8,6][7,0,5][3,4,1]]
[[2,1,0][7,8,5][3,6,4]]
[[2,8,1][7,0,5][3,6,4]]
[[2,4,0][7,1,5][8,3,6]]
[[2,1,4][7,0,5][8,3,6]]
[[4,0,2][8,7,6][3,5,1]]
[[4,7,2][0,8,6][3,5,1]]
[[4,7,5][6,0,2][8,3,1]]
[[4,7,5][8,6,2][0,3,1]]
[[0,6,5][7,4,2][8,3,1]]
[[0,5,2][7,4,1][8,6,3]]
[[7,5,2][8,4,1][0,6,3]]
[[2,4,0][7,5,6][3,1,8]]
```

```
[[7,2,6][5,1,0][8,3,4]]
[[7,2,6][5,3,1][8,0,4]]
[[5,4,0][7,3,2][8,1,6]]
[[5,4,2][7,0,3][8,1,6]]
[[5,4,0][3,2,8][1,7,6]]
[[0,5,4][3,2,8][1,7,6]]
[[0,5,2][7,1,4][3,6,8]]
[[5,1,2][7,0,4][3,6,8]]
[[5,4,0][7,2,1][3,6,8]]
[[0,5,4][7,2,1][3,6,8]]
[[3,7,5][1,0,2][8,4,6]]
[[3,7,5][1,4,2][8,6,0]]
[[5,3,2][1,0,4][8,7,6]]
[[5,3,2][1,7,4][8,6,0]]
[[7,2,1][5,4,0][8,3,6]]
[[7,2,1][5,3,4][8,0,6]]
[[0,5,2][8,4,7][3,1,6]]
[[8,5,2][3,4,7][0,1,6]]
[[4,8,7][2,0,5][3,1,6]]
[[4,8,7][3,2,5][0,1,6]]
[[8,7,5][3,4,1][0,6,2]]
[[7,5,6][8,0,4][3,2,1]]
[[7,5,6][8,4,1][3,2,0]]
[[7,4,0][2,6,5][8,3,1]]
[[7,4,5][2,6,1][8,3,0]]
[[2,4,0][5,7,1][8,3,6]]
[[2,7,4][5,0,1][8,3,6]]
[[1,0,2][8,7,5][3,6,4]]
[[1,7,2][0,8,5][3,6,4]]
[[1,7,2][8,6,5][3,0,4]]
[[5,2,0][8,3,4][7,1,6]]
[[5,2,4][8,0,3][7,1,6]]
[[7,2,8][3,4,0][1,5,6]]
[[7,2,8][0,3,4][1,5,6]]
[[3,0,2][5,7,6][1,4,8]]
[[8,4,0][5,2,7][3,1,6]]
[[0,8,4][5,2,7][3,1,6]]
[[5,1,0][7,2,8][3,6,4]]
[[0,5,1][7,2,8][3,6,4]]
[[7,5,2][3,0,4][6,1,8]]
[[7,5,2][3,1,4][0,6,8]]
[[5,1,0][7,6,2][8,4,3]]
[[5,1,2][7,6,3][8,4,0]]
[[3,0,2][5,7,1][6,8,4]]
[[3,7,2][5,1,0][6,8,4]]
[[4,5,2][8,0,6][7,3,1]]
[[5,8,0][4,3,2][7,1,6]]
[[5,8,2][4,0,3][7,1,6]]
[[7,2,1][3,5,4][0,6,8]]
[[7,0,2][1,3,4][5,8,6]]
[[5,8,2][0,4,6][1,7,3]]
[[1,3,2][5,8,4][7,6,0]]
```

```
[[4,7,2][3,5,6][0,1,8]]
[[7,2,1][6,3,5][8,0,4]]
[[5,4,0][3,6,2][7,8,1]]
[[5,4,2][3,6,1][7,8,0]]
[[5,4,2][3,8,6][7,1,0]]
[[2,4,0][5,3,1][7,8,6]]
[[2,3,4][5,0,1][7,8,6]]
[[5,4,0][3,2,1][7,8,6]]
[[0,5,4][3,2,1][7,8,6]]
[[5,2,4][3,8,1][7,6,0]]
[[0,2,6][7,3,5][4,8,1]]
[[5,2,6][7,0,3][4,8,1]]
[[5,2,6][7,3,1][4,8,0]]
[[8,1,2][7,5,4][3,0,6]]
[[1,5,2][7,8,4][3,0,6]]
[[5,2,6][7,0,3][4,8,1]]
[[5,2,6][7,3,1][4,8,0]]
[[5,2,6][7,0,4][1,8,3]]
[[5,2,6][7,4,3][1,8,0]]
[[8,2,6][5,0,4][7,3,1]]
[[8,2,6][5,4,1][7,3,0]]
[[5,1,2][3,0,6][7,4,8]]
[[3,2,4][5,0,6][1,7,8]]
[[3,2,4][5,7,6][0,1,8]]
[[7,5,0][4,1,2][3,8,6]]
[[7,5,2][4,0,1][3,8,6]]
[[1,0,2][5,7,3][8,6,4]]
[[1,7,2][5,6,3][8,0,4]]
[[3,7,5][4,0,6][1,2,8]]
[[3,7,5][4,2,6][0,1,8]]
[[3,0,2][1,5,4][7,8,6]]
[[1,7,5][3,0,2][4,8,6]]
[[1,2,4][5,0,6][7,3,8]]
[[5,2,6][4,1,3][7,8,0]]
[[1,2,6][5,0,4][7,8,3]]
[[1,2,6][5,4,3][7,8,0]]
[[7,2,3][4,1,5][8,0,6]]
[[3,7,4][0,2,6][1,5,8]]
[[7,2,4][3,6,8][1,0,5]]
[[0,3,2][1,7,4][8,5,6]]
[[3,7,0][1,4,2][8,5,6]]
[[0,7,2][3,1,4][8,5,6]]
[[3,7,2][8,1,4][0,5,6]]
[[7,2,4][1,6,3][8,0,5]]
[[0,2,6][7,3,5][4,8,1]]
[[5,0,6][7,4,2][3,8,1]]
[[5,4,6][0,7,2][3,8,1]]
[[7,5,2][0,6,4][3,8,1]]
[[5,6,2][7,4,0][3,8,1]]
[[5,6,2][0,7,4][3,8,1]]
[[2,4,5][7,3,0][1,8,6]]
[[2,3,4][0,7,5][1,8,6]]
```

```
[[7,2,4][5,1,6][0,3,8]]
[[7,2,6][4,1,3][8,5,0]]
[[8,0,7][3,5,2][4,1,6]]
[[0,8,2][3,7,1][6,5,4]]
[[8,7,0][3,1,2][6,5,4]]
[[8,7,2][3,1,4][6,5,0]]
[[0,7,2][8,3,1][6,5,4]]
[[8,7,2][6,3,1][0,5,4]]
[[0,3,2][5,7,8][1,6,4]]
[[3,7,0][5,8,2][1,6,4]]
[[3,7,2][5,6,8][1,4,0]]
[[3,7,2][5,6,8][0,1,4]]
[[7,5,4][0,2,3][1,8,6]]
[[5,2,4][7,8,0][1,6,3]]
[[0,2,4][5,3,6][8,7,1]]
[[8,0,7][4,6,5][3,2,1]]
[[8,7,5][3,4,6][2,0,1]]
[[7,0,5][8,2,6][4,3,1]]
[[8,0,5][2,7,6][4,3,1]]
[[8,7,5][2,3,6][4,0,1]]
[[7,5,4][0,2,6][8,1,3]]
[[5,2,4][7,6,3][8,0,1]]
[[0,3,2][5,7,6][4,8,1]]
[[2,4,8][5,1,0][7,3,6]]
[[2,1,4][5,8,0][7,3,6]]
[[2,1,4][5,3,8][7,0,6]]
[[5,4,8][1,2,0][7,3,6]]
[[5,1,2][3,8,0][7,6,4]]
[[0,2,1][7,3,5][6,8,4]]
[[7,2,1][6,3,5][0,8,4]]
[[8,2,6][5,4,7][3,0,1]]
[[8,2,6][5,7,1][3,0,4]]
[[3,0,2][5,7,6][1,4,8]]
[[3,7,2][0,4,6][5,1,8]]
[[5,0,2][7,6,1][4,8,3]]
[[7,5,2][6,1,0][4,8,3]]
[[7,0,5][4,6,2][3,1,8]]
[[7,5,2][4,6,8][3,0,1]]
[[3,7,5][4,8,0][1,6,2]]
[[7,0,5][3,4,6][1,2,8]]
[[7,4,5][0,3,6][1,2,8]]
[[7,4,5][0,2,6][3,1,8]]
[[5,3,2][0,7,6][1,4,8]]
[[8,2,7][3,4,5][1,0,6]]
[[7,0,5][3,4,6][1,2,8]]
[[7,4,5][0,3,6][1,2,8]]
[[7,4,5][0,2,6][3,1,8]]
[[5,2,6][4,3,8][7,0,1]]
[[5,2,6][4,8,1][7,0,3]]
[[7,2,6][4,5,8][3,0,1]]
[[0,2,3][7,1,5][8,6,4]]
[[7,2,3][8,1,5][0,6,4]]
```

```
[[7,2,3][1,6,5][8,4,0]]
[[5,0,1][4,6,2][7,8,3]]
[[8,7,6][2,0,5][3,4,1]]
[[8,7,6][3,2,5][0,4,1]]
[[0,8,7][5,6,2][3,4,1]]
[[8,6,7][5,0,2][3,4,1]]
[[3,7,0][5,8,2][1,6,4]]
[[0,7,2][3,8,4][5,1,6]]
[[3,7,2][8,0,4][5,1,6]]
[[8,7,1][2,0,5][3,6,4]]
[[8,7,1][3,2,5][0,6,4]]
[[0,7,5][3,6,2][1,4,8]]
[[7,6,5][3,0,2][1,4,8]]
[[7,2,6][8,1,4][3,0,5]]
[[7,2,6][3,8,1][5,0,4]]
[[0,5,8][7,6,2][3,4,1]]
[[5,6,8][7,0,2][3,4,1]]
[[0,7,5][3,8,2][4,1,6]]
[[7,8,5][3,0,2][4,1,6]]
[[0,5,2][7,3,8][4,1,6]]
[[7,5,2][3,1,8][4,6,0]]
[[7,5,2][3,1,8][0,4,6]]
[[0,5,4][7,6,2][8,3,1]]
[[5,6,4][7,0,2][8,3,1]]
[[5,4,2][7,0,1][8,6,3]]
[[2,4,8][5,0,7][3,1,6]]
[[2,7,0][5,8,4][3,1,6]]
[[2,7,4][5,1,8][3,6,0]]
[[2,7,4][5,1,8][0,3,6]]
[[5,3,0][7,8,2][1,6,4]]
[[3,8,2][0,7,6][4,5,1]]
[[7,0,2][8,3,6][4,5,1]]
[[7,2,1][3,8,4][5,0,6]]
[[4,8,5][3,0,2][1,7,6]]
[[4,8,5][3,7,2][1,6,0]]
[[7,5,0][8,1,2][4,3,6]]
[[7,1,5][8,0,2][4,3,6]]
[[8,5,0][1,7,2][4,3,6]]
[[0,8,5][1,7,2][4,3,6]]
[[8,7,0][1,2,5][4,3,6]]
[[8,7,5][1,3,2][4,6,0]]
[[0,7,4][8,6,5][3,2,1]]
[[7,6,4][8,0,5][3,2,1]]
[[0,5,8][7,6,2][3,4,1]]
[[5,6,8][7,0,2][3,4,1]]
[[7,5,4][2,0,1][8,3,6]]
[[7,5,4][8,2,1][0,3,6]]
[[0,7,5][1,6,2][8,4,3]]
[[7,6,5][1,0,2][8,4,3]]
[[1,0,7][8,4,2][3,5,6]]
[[1,7,2][3,8,4][5,0,6]]
[[0,2,4][5,3,6][8,7,1]]
```

```
[[2,8,4][5,3,6][7,1,0]]
[[8,5,4][2,0,6][7,3,1]]
[[5,2,4][8,0,1][7,6,3]]
[[7,2,8][1,3,5][6,0,4]]
[[7,2,8][3,6,0][1,4,5]]
[[7,2,8][0,6,5][3,1,4]]
[[0,2,4][5,7,6][1,3,8]]
[[5,2,4][1,7,6][0,3,8]]
[[0,7,5][4,6,2][1,8,3]]
[[7,6,5][4,0,2][1,8,3]]
[[7,2,6][3,5,8][0,1,4]]
[[0,5,8][4,6,2][7,3,1]]
[[5,6,8][4,0,2][7,3,1]]
[[5,8,2][4,0,1][7,6,3]]
[[3,0,4][2,7,5][1,8,6]]
[[7,2,4][0,3,8][1,6,5]]
[[7,2,4][3,6,8][1,0,5]]
[[7,2,4][1,0,6][5,3,8]]
[[7,2,6][4,0,3][8,1,5]]
[[3,0,7][1,5,2][8,6,4]]
[[0,8,7][5,1,2][3,6,4]]
[[8,1,7][5,0,2][3,6,4]]
[[0,7,2][8,6,1][5,3,4]]
[[8,7,2][6,0,1][5,3,4]]
[[7,3,5][4,2,0][8,1,6]]
[[7,3,5][4,1,2][8,0,6]]
[[7,2,4][8,0,6][5,1,3]]
[[7,2,4][8,1,6][5,3,0]]
[[5,2,6][3,7,8][4,0,1]]
[[5,2,6][7,4,0][3,1,8]]
[[3,7,5][0,6,2][4,8,1]]
[[7,6,5][3,2,0][4,8,1]]
[[7,6,5][0,3,2][4,8,1]]
[[5,2,6][8,7,4][3,0,1]]
[[5,2,6][7,3,0][8,1,4]]
[[5,2,6][7,1,0][8,4,3]]
[[5,2,6][0,7,1][8,4,3]]
[[7,2,6][3,8,0][4,1,5]]
[[7,2,6][0,8,4][3,1,5]]
[[7,2,6][8,1,4][3,0,5]]
[[7,5,0][2,8,4][3,1,6]]
[[7,5,4][2,1,8][3,6,0]]
[[7,5,4][2,1,8][0,3,6]]
[[7,5,4][3,0,8][1,2,6]]
[[7,5,4][3,2,8][1,6,0]]
[[7,0,2][8,4,6][5,3,1]]
[[5,3,7][0,4,2][1,8,6]]
[[3,4,7][5,2,0][1,8,6]]
[[7,2,1][3,8,0][6,4,5]]
[[7,2,1][6,3,5][8,0,4]]
[[7,2,4][8,1,0][3,6,5]]
[[7,2,4][0,1,3][8,6,5]]
```

```
[[7,2,4][1,6,3][8,0,5]]
[[1,4,7][5,2,0][8,3,6]]
[[1,4,7][5,3,2][8,0,6]]
[[1,0,7][5,3,2][8,6,4]]
[[1,0,2][5,7,3][8,6,4]]
[[1,7,2][5,6,3][8,0,4]]
[[0,3,2][5,7,6][4,8,1]]
[[7,6,5][4,2,1][8,0,3]]
[[7,6,5][4,3,0][8,1,2]]
[[7,0,5][4,1,2][8,6,3]]
[[5,3,2][0,7,6][1,4,8]]
[[7,5,2][0,1,6][4,3,8]]
[[5,4,2][0,7,6][3,1,8]]
[[5,4,2][7,1,6][3,0,8]]
[[8,5,0][6,7,2][3,4,1]]
[[0,8,5][6,7,2][3,4,1]]
[[8,7,0][6,2,5][3,4,1]]
[[8,7,5][6,2,1][3,4,0]]
[[8,7,5][6,4,2][3,1,0]]
[[8,7,5][6,4,2][0,3,1]]
[[8,7,5][3,0,2][4,6,1]]
[[8,7,5][3,6,2][4,1,0]]
[[7,6,5][8,0,1][3,2,4]]
[[7,6,5][8,2,1][0,3,4]]
[[6,5,0][7,8,2][3,4,1]]
[[6,8,5][7,0,2][3,4,1]]
[[7,6,5][3,8,2][4,1,0]]
[[7,6,0][8,4,5][3,1,2]]
[[7,6,5][8,0,4][3,1,2]]
[[0,6,5][7,4,2][8,3,1]]
[[8,5,2][3,0,7][1,4,6]]
[[3,8,5][7,0,2][1,4,6]]
[[3,8,5][1,7,2][0,4,6]]
[[0,8,7][3,2,5][1,4,6]]
[[7,5,0][8,3,2][1,4,6]]
[[7,3,5][8,0,2][1,4,6]]
[[8,7,5][1,3,2][4,6,0]]
[[0,8,7][3,4,5][1,6,2]]
[[8,4,7][3,0,5][1,6,2]]
[[8,5,0][3,7,4][1,6,2]]
[[0,8,5][3,7,4][1,6,2]]
[[0,7,5][8,3,4][1,6,2]]
[[8,7,5][1,3,4][0,6,2]]
[[8,7,5][3,6,4][1,2,0]]
[[8,7,5][3,6,4][0,1,2]]
[[8,4,0][2,7,5][3,1,6]]
[[0,8,4][2,7,5][3,1,6]]
[[8,7,4][2,1,5][3,6,0]]
[[8,7,4][2,1,5][0,3,6]]
[[8,7,4][3,0,5][1,2,6]]
[[8,7,4][3,2,5][1,6,0]]
[[4,5,2][3,7,8][0,1,6]]
```

```
[[4,5,2][7,1,8][3,6,0]]
[[4,5,2][7,1,8][0,3,6]]
[[0,4,8][7,2,5][3,1,6]]
[[4,8,5][3,0,2][1,7,6]]
[[4,8,5][3,7,2][1,6,0]]
[[4,8,0][7,1,5][3,6,2]]
[[4,8,5][7,0,1][3,6,2]]
[[0,7,4][3,8,5][1,6,2]]
[[7,8,4][3,0,5][1,6,2]]
[[7,5,0][3,4,8][1,6,2]]
[[0,7,5][3,4,8][1,6,2]]
[[0,4,5][7,3,8][1,6,2]]
[[7,4,5][1,3,8][0,6,2]]
[[7,4,5][3,6,8][1,2,0]]
[[7,4,5][3,6,8][0,1,2]]
[[8,7,4][1,0,5][3,6,2]]
[[8,7,4][3,1,5][0,6,2]]
[[0,1,4][7,8,5][3,6,2]]
[[7,1,4][3,8,5][0,6,2]]
[[7,1,4][8,6,5][3,2,0]]
[[7,1,4][8,6,5][0,3,2]]
[[7,5,1][8,0,4][3,6,2]]
[[7,5,1][8,4,2][3,6,0]]
[[8,7,5][3,4,1][0,6,2]]
[[4,5,0][7,8,1][3,6,2]]
[[4,8,5][7,0,1][3,6,2]]
[[7,4,5][3,8,1][6,2,0]]
[[0,4,5][7,6,1][8,3,2]]
[[7,4,5][6,0,1][8,3,2]]
[[4,5,2][7,0,1][8,3,6]]
[[4,1,0][7,2,5][8,3,6]]
[[4,1,5][8,7,2][0,3,6]]
[[4,1,5][7,3,2][8,6,0]]
[[7,4,0][1,3,5][8,6,2]]
[[7,4,5][1,0,3][8,6,2]]
[[7,5,8][3,0,2][1,4,6]]
[[7,5,8][3,4,2][1,6,0]]
[[4,8,0][5,7,2][3,1,6]]
[[4,7,8][5,0,2][3,1,6]]
[[5,4,8][3,0,2][1,7,6]]
[[5,4,8][3,7,2][1,6,0]]
[[5,4,0][7,1,8][3,6,2]]
[[5,4,8][7,0,1][3,6,2]]
[[0,8,7][5,4,2][3,1,6]]
[[8,4,7][5,0,2][3,1,6]]
[[0,7,2][8,1,4][5,3,6]]
[[8,7,2][1,0,4][5,3,6]]
[[3,5,2][8,0,4][1,7,6]]
[[3,5,2][1,8,4][0,7,6]]
[[0,5,8][3,4,2][1,7,6]]
[[5,4,8][3,0,2][1,7,6]]
[[8,3,2][5,0,4][1,7,6]]
```

```
[[0,5,8][3,7,2][1,6,4]]
[[5,7,8][3,0,2][1,6,4]]
[[0,5,2][3,8,7][1,6,4]]
[[0,8,2][5,3,7][1,6,4]]
[[5,8,2][1,3,7][0,6,4]]
[[5,8,2][3,6,7][1,4,0]]
[[5,8,2][3,6,7][0,1,4]]
[[7,5,8][1,0,2][3,6,4]]
[[7,5,8][3,1,2][0,6,4]]
[[5,1,0][7,2,8][3,6,4]]
[[5,1,8][7,2,4][3,6,0]]
[[0,1,8][5,7,2][3,6,4]]
[[5,1,8][3,7,2][0,6,4]]
[[5,1,8][7,6,2][3,4,0]]
[[5,1,8][7,6,2][0,3,4]]
[[5,8,2][3,0,1][6,7,4]]
[[5,8,2][3,7,1][6,4,0]]
[[3,5,0][8,7,2][1,6,4]]
[[0,3,5][8,7,2][1,6,4]]
[[3,7,0][8,2,5][1,6,4]]
[[3,7,5][8,2,4][1,6,0]]
[[3,7,5][8,6,2][1,4,0]]
[[3,7,5][8,6,2][0,1,4]]
[[3,7,5][1,8,2][6,4,0]]
[[0,7,8][3,2,5][1,6,4]]
[[7,8,5][3,0,4][1,2,6]]
[[7,8,5][3,2,4][0,1,6]]
[[8,5,0][7,3,2][1,6,4]]
[[8,3,5][7,0,2][1,6,4]]
[[7,8,5][1,0,2][6,3,4]]
[[7,8,5][1,3,2][6,4,0]]
[[7,8,0][3,6,5][1,4,2]]
[[0,8,5][7,6,2][3,1,4]]
[[7,8,5][6,0,2][3,1,4]]
[[5,3,0][7,8,2][1,6,4]]
[[0,3,2][5,7,8][1,6,4]]
[[5,3,2][1,7,8][0,6,4]]
[[5,3,2][7,6,8][1,4,0]]
[[5,3,2][7,6,8][0,1,4]]
[[7,5,0][1,8,2][6,3,4]]
[[7,5,2][1,8,4][6,3,0]]
[[0,5,2][7,1,8][6,3,4]]
[[7,5,2][6,1,8][0,3,4]]
[[7,5,0][1,3,2][6,4,8]]
[[7,5,2][1,0,3][6,4,8]]
[[0,7,5][3,6,2][1,4,8]]
[[7,6,5][3,0,2][1,4,8]]
[[5,6,2][7,0,8][3,1,4]]
[[7,5,0][6,8,2][3,1,4]]
[[7,5,2][6,8,4][3,1,0]]
[[7,5,2][6,1,8][3,4,0]]
[[7,5,2][6,1,8][0,3,4]]
```

```
[[8,5,2][1,0,7][3,6,4]]
[[8,5,2][1,7,4][3,6,0]]
[[0,8,7][1,2,5][3,6,4]]
[[8,7,5][1,0,4][3,2,6]]
[[8,7,5][1,2,4][0,3,6]]
[[8,7,0][1,6,5][3,4,2]]
[[0,7,5][8,6,2][1,3,4]]
[[8,7,5][6,0,2][1,3,4]]
[[8,5,0][3,7,2][6,1,4]]
[[0,8,5][3,7,2][6,1,4]]
[[8,7,0][3,2,5][6,1,4]]
[[8,7,5][3,2,4][6,1,0]]
[[0,7,5][8,3,2][6,1,4]]
[[8,7,5][6,3,2][0,1,4]]
[[8,7,0][3,1,5][6,4,2]]
[[8,7,5][3,0,1][6,4,2]]
[[8,7,1][2,0,5][3,6,4]]
[[8,7,1][3,2,5][0,6,4]]
[[7,5,0][8,1,4][3,2,6]]
[[0,7,5][8,1,4][3,2,6]]
[[7,1,0][8,4,5][3,2,6]]
[[0,1,5][7,8,4][3,2,6]]
[[7,1,5][3,8,4][0,2,6]]
[[0,1,5][7,2,4][8,3,6]]
[[7,1,5][2,0,4][8,3,6]]
[[7,1,0][3,8,5][6,4,2]]
[[7,1,5][3,0,8][6,4,2]]
[[0,7,1][8,6,5][3,4,2]]
[[7,6,1][8,0,5][3,4,2]]
[[0,7,5][6,1,2][8,3,4]]
[[7,1,0][6,2,5][8,3,4]]
[[7,1,5][6,2,4][8,3,0]]
[[7,1,5][6,3,2][8,4,0]]
[[5,8,2][3,0,1][6,7,4]]
[[5,8,2][3,7,1][6,4,0]]
[[0,7,5][3,8,2][6,4,1]]
[[7,8,5][3,0,2][6,4,1]]
[[0,5,2][7,3,8][6,4,1]]
[[7,5,2][6,3,8][0,4,1]]
[[7,5,2][3,4,8][6,1,0]]
[[7,5,2][3,4,8][0,6,1]]
[[5,6,0][7,1,2][8,3,4]]
[[5,6,2][7,1,4][8,3,0]]
[[0,6,2][5,7,1][8,3,4]]
[[5,6,2][8,7,1][0,3,4]]
[[5,6,2][7,3,1][8,4,0]]
[[0,7,5][6,1,2][8,3,4]]
[[7,5,2][6,0,4][8,1,3]]
[[7,5,0][6,3,2][8,4,1]]
[[7,5,2][6,0,3][8,4,1]]
[[7,5,1][8,4,2][0,3,6]]
[[0,4,1][5,7,2][8,3,6]]
```

```
[[5,4,1][8,7,2][0,3,6]]
[[5,4,1][7,3,2][8,6,0]]
[[0,5,2][8,1,4][3,7,6]]
[[5,1,0][8,4,2][3,7,6]]
[[0,1,2][5,8,4][3,7,6]]
[[5,1,2][3,8,4][0,7,6]]
[[5,1,0][8,7,2][3,6,4]]
[[5,1,2][8,0,7][3,6,4]]
[[0,5,1][7,3,2][8,6,4]]
[[5,3,1][7,0,2][8,6,4]]
[[0,1,2][5,7,3][8,6,4]]
[[5,1,2][8,7,3][0,6,4]]
[[5,1,2][7,6,3][8,4,0]]
[[7,4,0][1,3,5][8,6,2]]
[[7,4,5][1,0,3][8,6,2]]
[[7,3,0][1,2,5][8,6,4]]
[[7,3,5][1,2,4][8,6,0]]
[[0,3,5][7,1,2][8,6,4]]
[[7,3,5][8,1,2][0,6,4]]
[[7,3,5][1,6,2][8,4,0]]
[[7,5,2][8,0,3][6,1,4]]
[[7,5,2][8,1,3][6,4,0]]
[[5,0,2][3,8,6][4,7,1]]
[[5,8,2][0,3,6][4,7,1]]
[[5,0,2][8,4,6][3,7,1]]
[[5,4,2][0,8,6][3,7,1]]
[[5,2,4][0,3,7][1,6,8]]
[[5,2,4][3,6,7][1,0,8]]
[[5,2,4][3,7,1][6,0,8]]
[[4,5,2][7,3,0][1,8,6]]
[[4,3,5][7,2,0][1,8,6]]
[[4,3,5][0,7,2][1,8,6]]
[[8,0,7][3,5,2][6,4,1]]
[[8,5,2][4,1,0][3,6,7]]
[[8,1,7][4,6,5][3,0,2]]
[[8,5,1][4,7,0][3,6,2]]
[[8,7,5][3,4,6][2,0,1]]
[[4,8,5][0,7,6][3,2,1]]
[[2,7,5][0,4,6][8,3,1]]
[[5,0,2][3,8,6][4,7,1]]
[[5,8,2][0,3,6][4,7,1]]
[[5,2,4][8,1,0][3,7,6]]
[[5,2,4][0,8,1][3,7,6]]
[[5,2,4][8,7,0][3,6,1]]
[[5,2,4][0,7,3][8,6,1]]
[[5,2,4][7,6,3][8,0,1]]
[[7,5,2][0,8,6][4,1,3]]
[[8,0,1][5,4,2][7,3,6]]
[[8,1,2][5,3,0][7,6,4]]
[[5,4,8][1,2,0][7,3,6]]
[[5,4,8][1,3,2][7,0,6]]
[[5,0,8][1,3,2][7,6,4]]
```

```
[[5,0,2][1,8,3][7,6,4]]
[[5,8,2][0,1,3][7,6,4]]
[[5,8,2][1,6,3][7,0,4]]
[[3,7,2][1,5,0][6,4,8]]
[[0,3,2][5,7,6][4,8,1]]
[[5,2,4][8,0,6][1,7,3]]
[[5,2,4][8,7,6][1,3,0]]
[[0,4,2][5,7,6][1,8,3]]
[[5,4,2][1,7,6][0,8,3]]
[[0,2,8][7,5,4][3,1,6]]
[[4,5,2][7,3,0][1,8,6]]
[[4,3,5][7,2,0][1,8,6]]
[[4,3,5][0,7,2][1,8,6]]
[[8,2,4][5,1,0][3,6,7]]
[[8,2,4][0,1,7][5,3,6]]
[[5,2,1][3,7,8][6,0,4]]
[[5,2,1][7,6,0][3,4,8]]
[[3,7,5][0,1,2][6,8,4]]
[[5,3,2][7,1,0][6,8,4]]
[[5,3,2][0,7,1][6,8,4]]
[[5,1,2][8,7,6][4,0,3]]
[[5,2,0][1,3,4][7,6,8]]
[[5,2,4][1,0,3][7,6,8]]
[[8,4,2][5,3,6][7,1,0]]
[[3,5,2][1,0,4][7,8,6]]
[[0,5,1][3,4,2][7,8,6]]
[[5,4,1][3,0,2][7,8,6]]
[[1,2,4][5,3,7][8,6,0]]
[[1,7,0][3,4,2][5,8,6]]
[[8,7,2][3,5,0][1,6,4]]
[[1,5,2][0,7,8][3,6,4]]
[[1,5,2][7,6,8][3,0,4]]
[[1,5,2][7,8,4][3,0,6]]
[[1,0,8][7,2,5][3,6,4]]
[[1,8,5][7,2,4][3,0,6]]
[[1,8,5][3,7,2][6,0,4]]
[[1,8,5][7,6,0][3,4,2]]
[[6,7,2][8,5,1][3,0,4]]
[[1,0,5][8,7,2][3,4,6]]
[[1,7,5][8,2,0][3,4,6]]
[[1,7,5][0,8,2][3,4,6]]
[[1,7,5][8,4,0][3,6,2]]
[[3,5,2][4,0,7][1,8,6]]
[[0,3,7][4,2,5][1,8,6]]
[[8,2,0][4,1,7][3,6,5]]
[[8,2,7][4,0,1][3,6,5]]
[[8,2,4][5,3,1][7,6,0]]
[[0,5,2][1,8,6][7,4,3]]
[[0,8,2][5,1,6][7,4,3]]
[[0,2,4][8,7,6][5,3,1]]
[[8,2,4][7,0,6][5,3,1]]
[[1,5,2][4,0,7][8,3,6]]
```

```
[[1,7,0][4,3,5][8,6,2]]
[[1,7,5][4,0,3][8,6,2]]
[[3,5,2][0,4,6][7,8,1]]
[[8,2,1][5,6,7][3,0,4]]
[[8,2,1][5,7,4][3,0,6]]
[[5,0,8][7,4,6][3,2,1]]
[[5,4,8][0,7,6][3,2,1]]
[[8,0,5][3,7,6][1,2,4]]
[[8,7,5][0,3,6][1,2,4]]
[[8,7,5][0,2,6][3,1,4]]
[[4,8,5][0,7,6][3,2,1]]
[[7,0,5][1,4,6][8,2,3]]
[[7,4,5][0,1,6][8,2,3]]
[[7,0,5][4,2,8][3,1,6]]
[[7,5,8][4,1,0][3,6,2]]
[[5,0,8][7,4,6][3,2,1]]
[[5,4,8][0,7,6][3,2,1]]
[[5,0,2][3,8,6][1,4,7]]
[[5,8,2][0,3,6][1,4,7]]
[[5,8,2][0,4,6][3,1,7]]
[[5,2,8][0,7,3][1,6,4]]
[[5,2,8][7,6,3][1,0,4]]
[[5,2,8][7,3,4][1,0,6]]
[[3,7,5][0,1,2][6,8,4]]
[[7,0,1][3,2,5][6,8,4]]
[[8,7,5][0,1,6][3,4,2]]
[[7,1,5][3,8,6][4,0,2]]
[[7,1,5][0,4,6][8,3,2]]
[[5,2,1][7,6,4][8,0,3]]
[[7,0,5][1,4,6][8,2,3]]
[[7,4,5][0,1,6][8,2,3]]
[[5,0,2][7,6,3][1,8,4]]
[[7,5,2][6,3,0][1,8,4]]
[[7,5,3][1,4,2][0,8,6]]
[[0,4,3][5,7,2][1,8,6]]
[[5,4,3][1,7,2][0,8,6]]
[[1,5,0][8,4,2][7,3,6]]
[[1,5,2][8,3,4][7,6,0]]
[[8,2,4][3,5,7][1,6,0]]
[[1,7,2][8,5,3][6,4,0]]
[[1,0,5][4,7,6][8,2,3]]
[[7,2,1][4,5,3][8,0,6]]
[[1,0,4][2,7,5][8,3,6]]
[[1,7,4][2,3,5][8,0,6]]
[[1,7,4][8,2,5][3,0,6]]
[[4,7,2][3,0,6][5,8,1]]
[[3,7,2][0,5,8][4,1,6]]
[[2,7,4][3,5,8][1,0,6]]
[[3,0,2][5,8,4][7,1,6]]
[[5,0,2][8,3,4][7,1,6]]
[[5,3,2][8,4,0][7,1,6]]
[[5,3,2][8,1,4][7,0,6]]
```

```
[[8,7,2][4,3,6][5,1,0]]
[[7,2,1][8,4,6][0,3,5]]
[[1,2,4][8,0,7][3,5,6]]
[[1,7,2][8,0,6][3,4,5]]
[[1,7,2][8,4,6][0,3,5]]
[[8,0,4][2,5,6][7,3,1]]
[[5,2,4][3,1,6][7,0,8]]
[[5,2,6][7,1,4][3,8,0]]
[[0,2,6][5,7,1][3,8,4]]
[[5,2,6][3,7,1][0,8,4]]
[[7,4,8][2,5,0][3,1,6]]
[[0,8,2][4,7,6][5,3,1]]
[[8,7,2][4,3,6][5,1,0]]
[[0,2,1][7,8,6][3,4,5]]
[[7,2,1][3,8,6][0,4,5]]
[[7,2,1][8,4,6][0,3,5]]
[[8,0,7][2,5,4][3,1,6]]
[[7,4,2][0,5,8][3,1,6]]
[[4,0,5][1,8,2][7,3,6]]
[[4,8,5][1,2,0][7,3,6]]
[[4,8,5][1,3,2][7,0,6]]
[[7,0,1][8,5,4][3,6,2]]
[[7,1,4][8,5,2][3,0,6]]
[[4,0,8][5,1,2][7,3,6]]
[[5,4,8][1,2,0][7,3,6]]
[[5,4,8][1,3,2][7,0,6]]
[[8,0,2][5,6,1][7,3,4]]
[[5,0,2][6,8,1][7,3,4]]
[[5,8,2][6,1,0][7,3,4]]
[[5,8,2][6,3,1][7,0,4]]
[[6,7,2][0,5,8][3,1,4]]
[[1,8,5][3,7,2][6,0,4]]
[[1,5,2][7,6,0][8,3,4]]
[[1,6,5][7,2,0][8,3,4]]
[[1,6,5][0,7,2][8,3,4]]
[[1,6,5][7,3,2][8,0,4]]
[[8,0,2][5,6,1][7,3,4]]
[[5,0,2][6,8,1][7,3,4]]
[[5,8,2][6,1,0][7,3,4]]
[[5,8,2][6,3,1][7,0,4]]
[[3,7,2][0,5,8][6,4,1]]
[[1,0,5][3,7,2][8,6,4]]
[[1,7,5][3,2,0][8,6,4]]
[[1,7,5][3,6,2][8,0,4]]
[[1,7,5][8,3,2][6,0,4]]
[[5,2,4][3,8,6][0,1,7]]
[[7,5,0][3,4,6][2,8,1]]
[[0,7,5][3,4,6][2,8,1]]
[[0,4,5][7,3,6][2,8,1]]
[[4,2,5][8,7,6][0,3,1]]
[[4,2,5][7,3,6][8,1,0]]
[[0,4,5][7,3,6][2,8,1]]
```

```
[[8,1,2][5,0,6][7,4,3]]
[[5,2,0][7,4,1][3,8,6]]
[[0,2,1][5,7,4][3,8,6]]
[[5,2,1][3,7,4][0,8,6]]
[[5,2,1][7,0,3][6,8,4]]
[[5,2,1][7,3,4][6,8,0]]
[[4,0,2][8,5,6][7,3,1]]
[[1,2,4][8,5,7][3,0,6]]
[[0,2,3][7,5,4][1,8,6]]
[[4,5,2][3,7,6][0,8,1]]
[[0,4,5][7,2,6][1,8,3]]
[[7,4,5][2,0,6][1,8,3]]
[[7,5,8][4,0,6][3,2,1]]
[[7,5,8][4,2,6][0,3,1]]
[[5,2,4][3,8,6][0,1,7]]
[[0,2,1][5,7,6][8,3,4]]
[[5,2,1][8,7,6][0,3,4]]
[[5,2,1][7,3,6][8,4,0]]
[[0,4,5][7,2,6][1,8,3]]
[[7,4,5][2,0,6][1,8,3]]
[[1,2,4][7,0,6][5,8,3]]
[[5,2,6][3,4,0][7,8,1]]
[[8,7,4][2,5,6][0,3,1]]
[[8,5,0][4,1,2][7,3,6]]
[[8,1,5][4,0,2][7,3,6]]
[[7,2,8][1,5,4][6,3,0]]
[[7,2,8][6,5,4][3,1,0]]
[[7,2,8][3,5,1][6,4,0]]
[[7,4,2][0,5,6][3,8,1]]
[[5,2,6][4,1,3][7,8,0]]
[[3,2,4][1,7,0][8,5,6]]
[[3,7,2][1,4,6][8,0,5]]
[[1,7,4][2,0,6][8,5,3]]
[[1,7,4][8,2,6][0,5,3]]
[[0,2,4][5,6,1][7,3,8]]
[[5,2,4][6,0,1][7,3,8]]
[[2,3,0][7,5,4][1,8,6]]
[[8,2,1][3,7,0][6,5,4]]
[[3,2,8][5,7,0][1,6,4]]
[[0,2,4][5,8,3][7,1,6]]
[[5,2,4][8,0,3][7,1,6]]
[[0,1,4][2,5,8][7,3,6]]
[[1,5,4][2,0,8][7,3,6]]
[[0,1,4][2,5,6][7,8,3]]
[[1,5,4][2,0,6][7,8,3]]
[[0,2,6][8,5,7][3,4,1]]
[[8,2,6][3,5,7][0,4,1]]
[[0,7,2][6,5,1][4,8,3]]
[[0,3,2][5,4,6][7,1,8]]
[[7,2,3][0,6,5][1,8,4]]
[[7,5,2][4,3,8][1,0,6]]
[[2,4,8][5,7,6][3,0,1]]
```

```
[[2,7,4][5,8,6][3,0,1]]
[[8,7,5][1,2,6][4,0,3]]
[[5,4,1][7,2,6][8,0,3]]
[[7,2,6][0,5,3][1,8,4]]
[[3,7,0][2,5,4][1,8,6]]
[[0,2,6][5,4,8][7,3,1]]
[[0,2,6][5,8,1][7,3,4]]
[[5,2,6][8,0,1][7,3,4]]
[[7,5,4][2,8,6][3,0,1]]
[[0,4,7][3,5,2][1,8,6]]
[[3,4,7][1,5,2][0,8,6]]
[[1,4,7][8,5,2][0,3,6]]
[[0,7,2][1,5,6][4,3,8]]
[[8,5,2][3,7,6][1,0,4]]
[[8,2,7][0,3,5][1,4,6]]
[[8,2,7][3,4,5][1,0,6]]
[[5,0,2][4,7,8][3,1,6]]
[[4,2,8][0,7,5][3,1,6]]
[[4,2,8][7,1,5][3,0,6]]
[[7,0,5][3,4,1][6,8,2]]
[[7,4,5][3,1,0][6,8,2]]
[[7,4,5][0,3,1][6,8,2]]
[[4,5,2][7,1,6][8,0,3]]
[[4,1,5][7,2,6][8,0,3]]
[[8,2,4][5,3,0][1,7,6]]
[[5,2,7][3,8,0][1,6,4]]
[[3,0,5][1,7,2][6,8,4]]
[[3,7,5][1,2,0][6,8,4]]
[[3,7,5][0,1,2][6,8,4]]
[[7,0,5][3,8,6][1,4,2]]
[[7,8,5][0,3,6][1,4,2]]
[[7,8,5][3,4,6][1,0,2]]
[[5,2,8][7,6,0][3,1,4]]
[[8,2,7][0,1,5][3,6,4]]
[[8,2,7][1,6,5][3,0,4]]
[[8,0,5][1,7,6][3,4,2]]
[[8,7,5][0,1,6][3,4,2]]
[[8,7,5][1,4,6][3,0,2]]
[[7,5,2][0,1,4][6,8,3]]
[[7,5,1][4,2,0][8,3,6]]
[[7,5,1][4,3,2][8,0,6]]
[[5,4,1][7,2,6][8,0,3]]
[[5,2,4][8,1,0][3,7,6]]
[[5,1,2][8,4,6][3,0,7]]
[[7,3,5][0,6,2][1,8,4]]
[[0,2,4][5,6,1][7,3,8]]
[[5,2,4][6,0,1][7,3,8]]
[[8,1,0][4,5,7][3,6,2]]
[[8,1,7][4,5,2][3,6,0]]
[[0,7,2][8,5,6][4,1,3]]
[[0,2,1][5,6,8][7,3,4]]
[[5,2,1][6,0,8][7,3,4]]
```

```
[[0,2,1][5,8,4][7,3,6]]
[[5,2,1][8,0,4][7,3,6]]
[[1,2,4][0,3,7][5,8,6]]
[[1,2,4][3,7,0][5,8,6]]
[[1,8,5][6,0,2][7,3,4]]
[[1,4,3][5,0,2][7,8,6]]
[[7,2,1][0,5,4][6,8,3]]
[[1,5,2][4,7,6][8,0,3]]
[[1,2,7][4,3,5][8,0,6]]
[[0,2,1][8,5,7][3,6,4]]
[[8,2,1][3,5,7][0,6,4]]
[[0,4,8][5,2,6][7,3,1]]
[[5,4,8][2,0,6][7,3,1]]
[[4,8,5][2,0,6][7,3,1]]
[[0,4,8][5,2,6][7,3,1]]
[[5,4,8][2,0,6][7,3,1]]
[[1,5,0][7,3,2][6,8,4]]
[[1,3,5][7,0,2][6,8,4]]
[[1,5,0][7,8,6][3,4,2]]
[[1,8,5][7,0,6][3,4,2]]
[[0,7,2][6,5,3][1,8,4]]
[[7,5,3][4,2,0][1,8,6]]
[[1,5,2][8,4,6][7,0,3]]
[[1,2,4][8,5,6][0,7,3]]
[[0,2,4][8,5,6][7,1,3]]
[[7,8,2][4,5,6][3,0,1]]
[[1,7,0][2,5,4][8,3,6]]
[[7,0,2][4,3,6][5,8,1]]
[[1,2,4][8,7,6][3,0,5]]
[[1,7,2][6,5,8][0,3,4]]
[[5,2,4][0,3,6][1,8,7]]
[[8,2,4][3,5,6][7,1,0]]
[[5,0,2][4,7,6][3,8,1]]
[[5,2,4][0,3,6][1,8,7]]
[[7,2,8][3,5,6][4,0,1]]
[[4,2,8][7,5,6][3,0,1]]
[[1,2,4][8,5,6][7,0,3]]
[[1,2,4][8,5,6][7,0,3]]
[[7,2,1][6,5,0][4,8,3]]
[[5,0,2][4,3,6][7,1,8]]
[[5,3,2][4,1,6][7,0,8]]
[[0,4,2][5,6,1][7,8,3]]
[[5,4,2][6,0,1][7,8,3]]
[[8,2,0][3,5,7][1,4,6]]
[[4,1,5][3,0,2][7,8,6]]
[[8,2,0][1,5,7][3,6,4]]
[[8,2,7][1,5,4][3,6,0]]
[[0,6,2][5,3,1][7,8,4]]
[[5,6,2][3,0,1][7,8,4]]
[[7,1,0][4,5,2][8,3,6]]
[[0,7,1][4,5,2][8,3,6]]
[[0,4,1][5,3,2][7,8,6]]
```

```
[[5,4,1][3,0,2][7,8,6]]
[[5,2,3][7,0,1][8,6,4]]
[[5,2,3][7,1,4][8,6,0]]
[[0,1,2][5,6,3][7,8,4]]
[[5,1,2][6,0,3][7,8,4]]
[[5,2,3][7,0,1][8,6,4]]
[[5,2,3][7,1,4][8,6,0]]
[[1,5,8][4,2,0][7,3,6]]
[[1,5,8][4,3,2][7,0,6]]
[[1,2,8][7,5,0][3,6,4]]
[[3,2,0][4,5,7][1,8,6]]
[[1,2,0][4,5,7][8,3,6]]
[[3,0,2][4,5,6][7,8,1]]
[[8,0,5][4,2,6][7,3,1]]
[[0,7,3][4,5,2][1,8,6]]
[[1,7,4][2,5,6][8,0,3]]
[[4,2,5][3,0,6][7,8,1]]
[[0,2,1][5,3,6][7,8,4]]
[[5,2,1][3,0,6][7,8,4]]
[[8,2,7][3,5,6][1,0,4]]
[[1,8,0][4,5,2][7,3,6]]
[[1,2,7][4,5,6][8,0,3]]
[[7,2,3][6,5,4][1,8,0]]
[[1,5,0][4,3,2][7,8,6]]
[[1,3,5][4,0,2][7,8,6]]
[[7,2,6][3,4,5][1,8,0]]
[[7,2,6][1,4,5][0,8,3]]
[[7,0,2][3,5,1][4,6,8]]
[[2,8,6][7,5,0][3,4,1]]
[[2,8,1][7,5,0][3,6,4]]
[[2,1,4][7,5,0][8,3,6]]
[[4,2,0][8,7,6][3,5,1]]
[[0,7,2][4,8,6][3,5,1]]
[[7,2,0][5,1,6][8,3,4]]
[[7,2,6][5,3,1][0,8,4]]
[[7,2,1][5,4,6][8,3,0]]
[[7,2,1][5,3,4][0,8,6]]
[[4,8,7][2,5,0][3,1,6]]
[[7,0,6][8,5,4][3,2,1]]
[[2,7,4][0,5,1][8,3,6]]
[[1,2,0][8,7,5][3,6,4]]
[[7,2,8][3,4,6][1,5,0]]
[[3,2,0][5,7,6][1,4,8]]
[[7,0,2][3,5,4][6,1,8]]
[[3,2,0][5,7,1][6,8,4]]
[[4,0,2][8,5,6][7,3,1]]
[[7,2,0][1,3,4][5,8,6]]
[[5,8,2][4,0,6][1,7,3]]
[[7,2,1][6,3,5][0,8,4]]
[[2,3,4][0,5,1][7,8,6]]
[[1,5,2][7,0,4][3,8,6]]
[[8,2,6][0,5,4][7,3,1]]
```

```
[[3,2,4][0,5,6][1,7,8]]
[[7,0,2][4,5,1][3,8,6]]
[[1,2,0][5,7,3][8,6,4]]
[[1,7,2][5,6,3][0,8,4]]
[[3,2,0][1,5,4][7,8,6]]
[[1,2,4][0,5,6][7,3,8]]
[[1,2,6][0,5,4][7,8,3]]
[[7,2,3][4,1,5][0,8,6]]
[[1,3,2][0,7,4][8,5,6]]
[[7,2,4][1,6,3][0,8,5]]
[[2,4,5][7,3,6][1,8,0]]
[[7,2,5][8,0,6][4,3,1]]
[[5,2,4][7,6,3][0,8,1]]
[[2,4,8][5,1,6][7,3,0]]
[[2,1,4][5,8,6][7,3,0]]
[[5,4,8][1,2,6][7,3,0]]
[[3,2,0][5,7,6][1,4,8]]
[[3,7,2][4,0,6][5,1,8]]
[[5,2,0][7,6,1][4,8,3]]
[[8,7,6][2,5,0][3,4,1]]
[[8,6,7][0,5,2][3,4,1]]
[[8,7,1][2,5,0][3,6,4]]
[[7,2,6][3,0,1][5,8,4]]
[[2,4,8][0,5,7][3,1,6]]
[[5,0,3][7,8,2][1,6,4]]
[[3,8,2][4,7,6][0,5,1]]
[[7,2,0][8,3,6][4,5,1]]
[[7,2,1][3,0,4][5,8,6]]
[[1,8,5][0,7,2][4,3,6]]
[[7,6,4][8,5,0][3,2,1]]
[[7,0,4][2,5,1][8,3,6]]
[[1,7,5][0,6,2][8,4,3]]
[[8,0,4][2,5,6][7,3,1]]
[[7,2,8][3,0,6][1,4,5]]
[[8,1,7][0,5,2][3,6,4]]
[[7,3,5][4,2,6][8,1,0]]
[[7,3,5][4,1,2][0,8,6]]
[[3,7,5][4,6,2][0,8,1]]
[[5,2,0][7,3,6][8,1,4]]
[[7,2,0][3,8,6][4,1,5]]
[[7,0,4][3,5,8][1,2,6]]
[[7,2,0][8,4,6][5,3,1]]
[[5,3,7][4,0,2][1,8,6]]
[[3,4,7][5,2,6][1,8,0]]
[[7,2,4][1,6,3][0,8,5]]
[[1,4,7][5,2,6][8,3,0]]
[[1,4,7][5,3,2][0,8,6]]
[[1,2,0][5,7,3][8,6,4]]
[[1,7,2][5,6,3][0,8,4]]
[[7,6,5][4,2,1][0,8,3]]
[[5,4,2][7,1,6][3,8,0]]
[[8,0,2][3,5,7][1,4,6]]
```

```
[[8,4,7][3,5,0][1,6,2]]
[[8,7,4][3,5,0][1,2,6]]
[[4,5,2][0,1,8][7,3,6]]
[[7,8,4][3,5,0][1,6,2]]
[[8,7,4][1,5,0][3,6,2]]
[[1,0,4][7,8,5][3,6,2]]
[[7,0,1][8,5,4][3,6,2]]
[[4,0,2][7,5,1][8,3,6]]
[[7,0,8][3,5,2][1,4,6]]
[[8,4,7][0,5,2][3,1,6]]
[[3,0,2][8,5,4][1,7,6]]
[[3,5,2][1,8,4][7,0,6]]
[[8,3,2][0,5,4][1,7,6]]
[[7,0,8][1,5,2][3,6,4]]
[[1,0,8][5,7,2][3,6,4]]
[[5,1,8][0,6,2][7,3,4]]
[[5,0,3][7,8,2][1,6,4]]
[[5,3,2][0,6,8][7,1,4]]
[[7,0,2][1,5,3][6,4,8]]
[[8,0,2][1,5,7][3,6,4]]
[[1,8,7][0,2,5][3,6,4]]
[[8,7,1][2,5,0][3,6,4]]
[[1,0,5][7,8,4][3,2,6]]
[[1,0,5][7,2,4][8,3,6]]
[[7,6,1][8,5,0][3,4,2]]
[[7,0,2][6,5,4][8,1,3]]
[[7,0,2][6,5,3][8,4,1]]
[[1,0,2][5,8,4][3,7,6]]
[[7,0,2][8,5,3][6,1,4]]
[[5,2,0][3,8,6][4,7,1]]
[[5,2,0][8,4,6][3,7,1]]
[[5,2,4][3,6,7][1,8,0]]
[[5,2,4][3,7,1][6,8,0]]
[[4,5,2][7,3,6][1,8,0]]
[[4,3,5][7,2,6][1,8,0]]
[[2,7,5][4,0,6][8,3,1]]
[[5,2,0][3,8,6][4,7,1]]
[[5,2,4][8,1,6][3,7,0]]
[[5,2,4][7,6,3][0,8,1]]
[[5,4,8][1,2,6][7,3,0]]
[[5,2,0][1,8,3][7,6,4]]
[[4,5,2][7,3,6][1,8,0]]
[[4,3,5][7,2,6][1,8,0]]
[[5,2,1][7,0,6][3,4,8]]
[[1,5,2][7,0,4][3,8,6]]
[[1,2,8][7,0,5][3,6,4]]
[[1,8,5][7,0,6][3,4,2]]
[[1,7,5][8,2,6][3,4,0]]
[[3,0,2][4,5,7][1,8,6]]
[[1,5,2][0,8,6][7,4,3]]
[[1,0,2][4,5,7][8,3,6]]
[[3,5,2][4,0,6][7,8,1]]
```

```
[[7,2,5][4,0,8][3,1,6]]
[[5,2,0][3,8,6][1,4,7]]
[[5,8,2][4,0,6][3,1,7]]
[[7,1,5][3,0,6][4,8,2]]
[[7,1,5][4,0,6][8,3,2]]
[[5,2,1][7,6,4][0,8,3]]
[[5,2,0][7,6,3][1,8,4]]
[[7,2,1][4,5,3][0,8,6]]
[[1,7,4][2,3,5][0,8,6]]
[[3,7,2][4,5,8][0,1,6]]
[[3,2,0][5,8,4][7,1,6]]
[[5,3,2][8,4,6][7,1,0]]
[[1,2,4][8,5,7][3,0,6]]
[[7,4,8][2,5,6][3,1,0]]
[[4,8,5][1,2,6][7,3,0]]
[[5,4,8][1,2,6][7,3,0]]
[[8,2,0][5,6,1][7,3,4]]
[[5,2,0][6,8,1][7,3,4]]
[[1,5,2][7,0,6][8,3,4]]
[[1,6,5][7,3,2][0,8,4]]
[[8,2,0][5,6,1][7,3,4]]
[[5,2,0][6,8,1][7,3,4]]
[[1,7,5][3,6,2][0,8,4]]
[[8,1,2][0,5,6][7,4,3]]
[[4,2,0][8,5,6][7,3,1]]
[[7,0,8][4,5,6][3,2,1]]
[[3,2,4][1,7,6][8,5,0]]
[[3,7,2][1,4,6][0,8,5]]
[[1,7,4][2,5,6][8,0,3]]
[[2,0,3][7,5,4][1,8,6]]
[[1,0,4][2,5,8][7,3,6]]
[[1,0,4][2,5,8][7,3,6]]
[[1,0,4][2,5,6][7,8,3]]
[[1,0,4][2,5,6][7,8,3]]
[[5,4,1][7,2,6][0,8,3]]
[[1,7,2][0,5,6][4,3,8]]
[[5,2,0][4,7,8][3,1,6]]
[[0,2,8][4,7,5][3,1,6]]
[[4,5,2][7,1,6][0,8,3]]
[[4,1,5][7,2,6][0,8,3]]
[[8,2,4][5,3,6][1,7,0]]
[[5,2,8][7,0,6][3,1,4]]
[[7,5,1][4,2,6][8,3,0]]
[[7,5,1][4,3,2][0,8,6]]
[[5,4,1][7,2,6][0,8,3]]
[[5,2,4][8,1,6][3,7,0]]
[[1,2,4][3,7,6][5,8,0]]
[[1,4,3][0,5,2][7,8,6]]
[[1,5,2][4,7,6][0,8,3]]
[[1,2,7][4,3,5][0,8,6]]
[[7,5,3][4,2,6][1,8,0]]
[[1,2,4][8,5,6][7,0,3]]
```

```
[[7,2,0][4,3,6][5,8,1]]
[[5,2,0][4,7,6][3,8,1]]
[[5,2,0][4,3,6][7,1,8]]
[[5,3,2][4,1,6][7,8,0]]
[[1,0,2][5,6,3][7,8,4]]
[[1,5,8][4,2,6][7,3,0]]
[[3,2,0][4,5,6][7,8,1]]
[[8,2,5][4,0,6][7,3,1]]
[[1,7,4][2,5,6][0,8,3]]
[[1,2,7][4,5,6][0,8,3]]
[[7,2,0][3,5,1][4,6,8]]
[[2,8,0][7,5,6][3,4,1]]
[[2,1,4][7,5,6][8,3,0]]
[[4,8,7][2,5,6][3,1,0]]
[[7,2,0][3,5,4][6,1,8]]
[[4,2,0][8,5,6][7,3,1]]
[[1,0,2][7,5,4][3,8,6]]
[[7,2,0][4,5,1][3,8,6]]
[[1,2,3][5,7,0][8,6,4]]
[[5,2,4][0,6,3][7,8,1]]
[[8,7,0][2,5,6][3,4,1]]
[[1,8,5][4,7,2][0,3,6]]
[[1,2,3][5,7,0][8,6,4]]
[[8,7,4][3,5,6][1,2,0]]
[[0,5,2][4,1,8][7,3,6]]
[[4,2,0][7,5,1][8,3,6]]
[[3,2,0][8,5,4][1,7,6]]
[[7,2,0][1,5,3][6,4,8]]
[[1,2,5][7,0,4][8,3,6]]
[[7,2,0][6,5,4][8,1,3]]
[[7,2,0][6,5,3][8,4,1]]
[[1,2,0][5,8,4][3,7,6]]
[[7,2,0][8,5,3][6,1,4]]
[[5,2,4][0,6,3][7,8,1]]
[[5,2,3][1,8,0][7,6,4]]
[[1,0,2][7,5,4][3,8,6]]
[[5,2,1][0,6,4][7,8,3]]
[[5,2,3][7,6,0][1,8,4]]
[[1,0,2][7,5,6][8,3,4]]
[[1,6,5][0,3,2][7,8,4]]
[[1,7,4][2,5,6][0,8,3]]
[[5,4,1][0,2,6][7,8,3]]
[[1,7,2][4,5,6][0,3,8]]
[[4,1,5][0,2,6][7,8,3]]
[[5,4,1][0,2,6][7,8,3]]
[[1,2,0][5,6,3][7,8,4]]
[[1,2,0][7,5,4][3,8,6]]
[[7,2,3][1,5,0][6,4,8]]
[[7,2,3][6,5,0][8,4,1]]
[[7,2,3][8,5,0][6,1,4]]
[[1,2,0][7,5,4][3,8,6]]
[[5,2,3][7,0,6][1,8,4]]
```

```
[[1,2,0][7,5,6][8,3,4]]
[[0,1,5][4,2,6][7,8,3]]
[[1,2,3][5,6,0][7,8,4]]
[[1,0,5][4,2,6][7,8,3]]
[[1,2,3][5,0,6][7,8,4]]
[[1,2,5][4,0,6][7,8,3]]
[[1,2,3][0,5,6][7,8,4]]
[[7,0,6][3,2,5][1,4,8]]
[[7,0,6][1,2,5][8,4,3]]
[[7,0,6][4,2,5][1,8,3]]
[[7,2,6][0,4,5][1,8,3]]
[[7,2,6][4,8,5][1,0,3]]
[[7,2,6][3,0,1][4,5,8]]
[[4,7,2][8,6,0][3,5,1]]
[[2,5,4][7,0,6][3,1,8]]
[[7,0,6][5,2,1][8,3,4]]
[[7,0,1][5,2,4][8,3,6]]
[[7,0,8][3,2,4][1,5,6]]
[[3,7,2][5,6,0][1,4,8]]
[[3,7,2][5,8,1][6,0,4]]
[[4,5,2][7,8,6][0,3,1]]
[[7,2,1][3,0,4][6,5,8]]
[[1,3,2][5,8,4][0,7,6]]
[[4,7,2][5,0,6][3,1,8]]
[[7,0,1][6,2,5][8,3,4]]
[[4,1,5][0,7,2][8,3,6]]
[[5,4,2][3,8,6][0,7,1]]
[[5,2,4][3,8,1][0,7,6]]
[[8,0,7][4,2,6][3,5,1]]
[[8,2,7][4,6,0][3,5,1]]
[[8,2,7][0,4,6][3,5,1]]
[[5,1,2][3,4,6][0,7,8]]
[[1,3,2][7,5,4][8,0,6]]
[[0,7,5][1,3,2][4,8,6]]
[[1,2,4][5,3,6][0,7,8]]
[[7,0,3][4,2,5][8,1,6]]
[[7,2,3][0,4,5][8,1,6]]
[[7,4,6][3,2,0][1,5,8]]
[[7,0,2][3,6,4][1,5,8]]
[[4,7,6][0,2,5][8,3,1]]
[[2,0,6][7,4,5][8,3,1]]
[[7,4,6][1,2,0][8,5,3]]
[[7,0,2][1,6,4][8,5,3]]
[[5,4,6][7,8,2][3,0,1]]
[[5,4,6][7,2,1][3,0,8]]
[[5,6,2][7,8,4][3,0,1]]
[[2,3,4][7,8,5][1,0,6]]
[[8,7,5][2,6,0][4,3,1]]
[[5,4,6][7,2,0][8,1,3]]
[[5,0,2][7,6,4][8,1,3]]
[[2,4,6][7,5,0][1,8,3]]
[[2,4,6][5,1,0][7,8,3]]
```

```
[[2,1,4][5,6,0][7,8,3]]
[[2,1,4][5,8,6][7,0,3]]
[[5,4,6][1,2,0][7,8,3]]
[[5,0,2][1,6,4][7,8,3]]
[[5,2,4][1,6,3][7,0,8]]
[[4,7,2][1,5,6][8,0,3]]
[[8,0,6][5,2,7][3,4,1]]
[[3,7,2][5,6,0][1,4,8]]
[[7,5,2][6,8,1][4,0,3]]
[[2,0,6][7,5,1][4,8,3]]
[[3,7,5][0,8,2][4,1,6]]
[[7,4,5][3,6,0][1,2,8]]
[[5,3,2][7,6,0][1,4,8]]
[[2,0,7][8,4,5][3,1,6]]
[[3,7,2][4,5,0][8,1,6]]
[[7,4,5][3,6,0][1,2,8]]
[[0,1,2][5,7,6][8,4,3]]
[[5,0,6][4,2,8][7,3,1]]
[[5,2,6][0,4,8][7,3,1]]
[[5,1,2][4,6,3][7,0,8]]
[[5,1,2][4,8,0][7,3,6]]
[[4,7,2][5,3,0][8,1,6]]
[[2,0,6][7,8,1][3,5,4]]
[[7,0,2][8,4,1][3,5,6]]
[[2,0,1][7,8,4][3,5,6]]
[[2,8,4][5,3,6][0,7,1]]
[[8,5,4][7,2,6][0,3,1]]
[[5,2,4][8,6,1][0,7,3]]
[[2,0,8][7,3,5][1,6,4]]
[[7,2,6][3,0,8][1,5,4]]
[[5,8,2][4,6,1][0,7,3]]
[[7,2,6][1,0,3][8,5,4]]
[[3,7,4][2,8,5][1,0,6]]
[[3,7,4][1,2,5][8,0,6]]
[[7,0,2][3,8,4][1,6,5]]
[[7,0,4][3,2,8][1,6,5]]
[[2,0,4][7,8,5][3,1,6]]
[[4,7,5][0,3,2][8,1,6]]
[[7,3,5][0,4,2][8,1,6]]
[[2,0,6][5,7,8][3,4,1]]
[[7,6,5][3,8,2][4,0,1]]
[[2,0,6][5,7,4][8,3,1]]
[[5,0,6][7,2,1][8,4,3]]
[[7,0,6][8,2,4][3,1,5]]
[[2,0,6][7,4,5][8,3,1]]
[[3,4,7][5,8,2][1,0,6]]
[[7,0,2][8,6,1][3,4,5]]
[[2,0,1][7,6,5][8,3,4]]
[[7,0,1][6,2,5][8,3,4]]
[[7,0,2][1,3,4][8,6,5]]
[[7,0,4][1,2,3][8,6,5]]
[[5,3,2][7,6,0][1,4,8]]
```

```
[[7,5,2][1,6,0][4,3,8]]
[[5,4,2][7,6,0][3,1,8]]
[[5,8,2][3,6,0][4,7,1]]
[[5,8,2][3,7,0][4,1,6]]
[[5,4,2][8,6,0][3,7,1]]
[[5,4,2][8,7,0][3,1,6]]
[[2,0,4][5,3,8][1,7,6]]
[[5,0,2][3,7,4][1,6,8]]
[[5,0,4][3,2,7][1,6,8]]
[[2,0,4][5,7,1][3,6,8]]
[[4,3,5][7,8,2][1,0,6]]
[[8,5,2][0,1,7][4,3,6]]
[[4,8,7][0,1,5][3,6,2]]
[[8,1,7][0,4,5][3,6,2]]
[[4,8,5][0,7,1][3,6,2]]
[[8,7,5][0,6,1][4,3,2]]
[[4,5,6][7,8,0][3,2,1]]
[[4,8,5][7,6,0][3,2,1]]
[[7,4,5][3,8,0][2,1,6]]
[[4,5,6][7,2,0][8,3,1]]
[[7,5,6][2,4,0][8,3,1]]
[[7,4,5][2,3,0][8,1,6]]
[[5,8,2][3,6,0][4,7,1]]
[[5,8,2][3,7,0][4,1,6]]
[[5,0,4][8,2,1][3,7,6]]
[[5,0,2][7,3,4][8,6,1]]
[[5,0,4][7,2,3][8,6,1]]
[[7,5,2][8,6,0][4,1,3]]
[[7,5,2][8,1,0][4,3,6]]
[[0,1,7][8,5,2][3,6,4]]
[[1,5,7][8,0,2][3,6,4]]
[[7,2,8][5,0,4][3,1,6]]
[[3,7,2][1,0,6][4,5,8]]
[[4,3,5][7,8,2][1,0,6]]
[[2,0,1][5,7,8][3,6,4]]
[[5,3,2][7,8,1][6,0,4]]
[[8,4,2][5,3,6][0,7,1]]
[[3,5,2][7,1,4][0,8,6]]
[[0,1,2][3,7,4][5,8,6]]
[[8,2,4][5,3,1][0,7,6]]
[[5,8,2][7,1,6][0,4,3]]
[[1,7,2][8,5,0][4,3,6]]
[[7,2,1][6,0,4][8,5,3]]
[[0,1,7][4,2,5][8,3,6]]
[[4,3,2][5,6,0][7,8,1]]
[[4,3,2][5,8,6][7,0,1]]
[[8,0,1][5,2,7][3,6,4]]
[[5,4,8][7,6,0][3,2,1]]
[[8,7,5][3,6,0][1,2,4]]
[[4,8,5][7,6,0][3,2,1]]
[[7,4,5][1,6,0][8,2,3]]
[[7,5,8][0,1,2][4,3,6]]
```

```
[[5,4,8][7,6,0][3,2,1]]
[[5,8,2][3,6,0][1,4,7]]
[[5,0,8][7,2,3][1,6,4]]
[[7,1,5][3,2,4][6,0,8]]
[[7,5,6][8,1,0][3,4,2]]
[[7,4,5][1,6,0][8,2,3]]
[[7,5,2][6,8,3][1,0,4]]
[[1,5,2][8,3,4][0,7,6]]
[[8,2,4][3,0,7][1,5,6]]
[[1,0,4][5,2,6][8,7,3]]
[[1,2,4][5,6,0][8,7,3]]
[[1,7,2][8,0,3][6,5,4]]
[[8,0,4][5,2,6][7,1,3]]
[[8,2,4][5,6,0][7,1,3]]
[[1,7,5][4,6,0][8,2,3]]
[[1,7,5][0,4,6][8,2,3]]
[[7,8,2][4,0,5][3,1,6]]
[[2,7,4][3,5,6][8,0,1]]
[[2,0,4][5,3,6][7,1,8]]
[[5,0,4][3,2,6][7,1,8]]
[[5,2,4][3,6,0][7,1,8]]
[[7,4,6][2,5,0][3,8,1]]
[[8,1,2][5,4,6][0,7,3]]
[[2,0,4][3,5,7][1,8,6]]
[[3,2,4][1,5,7][8,0,6]]
[[4,8,2][0,5,6][3,7,1]]
[[2,0,4][8,5,1][7,3,6]]
[[2,0,4][8,5,6][3,7,1]]
[[7,2,3][5,0,4][1,8,6]]
[[0,2,4][1,7,6][5,8,3]]
[[0,1,2][4,7,6][5,8,3]]
[[7,2,8][3,0,5][4,1,6]]
[[2,0,6][5,3,4][7,8,1]]
[[5,0,6][3,2,4][7,8,1]]
[[5,2,6][3,8,4][7,0,1]]
[[2,0,6][5,4,1][7,8,3]]
[[8,7,4][2,0,6][3,5,1]]
[[4,2,8][7,0,5][3,1,6]]
[[7,2,8][1,0,5][6,3,4]]
[[7,2,8][6,0,5][3,1,4]]
[[7,2,8][3,0,5][6,4,1]]
[[1,2,4][8,0,5][7,3,6]]
[[1,2,4][8,0,5][7,3,6]]
[[7,2,4][5,1,0][3,8,6]]
[[7,0,2][4,1,6][8,5,3]]
[[3,2,6][5,7,0][4,8,1]]
[[2,1,4][7,5,8][0,3,6]]
[[1,5,4][7,2,8][0,3,6]]
[[2,1,4][7,5,6][0,8,3]]
[[1,5,4][7,2,6][0,8,3]]
[[1,2,6][5,7,0][8,4,3]]
[[7,2,4][1,3,0][5,8,6]]
```

```
[[7,0,2][4,3,6][8,1,5]]
[[0,4,7][1,5,2][8,3,6]]
[[5,3,2][4,7,6][8,0,1]]
[[1,5,8][7,4,2][0,3,6]]
[[5,3,2][4,7,6][8,0,1]]
[[3,7,2][1,5,0][4,8,6]]
[[1,2,6][5,7,0][8,4,3]]
[[1,7,2][3,4,6][5,0,8]]
[[0,1,2][7,5,8][3,6,4]]
[[0,8,5][1,6,2][7,3,4]]
[[3,5,2][4,7,6][1,0,8]]
[[3,2,7][0,4,5][1,8,6]]
[[3,2,7][4,8,5][1,0,6]]
[[5,2,6][1,8,0][7,4,3]]
[[0,1,3][5,4,2][7,8,6]]
[[1,2,7][0,4,5][8,3,6]]
[[4,3,2][7,5,6][0,8,1]]
[[7,5,3][4,8,2][1,0,6]]
[[5,4,3][7,2,6][1,0,8]]
[[0,2,4][1,5,6][8,7,3]]
[[8,2,4][7,5,6][0,1,3]]
[[5,0,2][7,1,6][3,8,4]]
[[8,2,6][4,7,0][5,3,1]]
[[1,7,2][5,0,8][6,3,4]]
[[5,0,4][3,2,6][1,8,7]]
[[5,2,4][3,6,0][1,8,7]]
[[2,0,5][4,7,6][8,3,1]]
[[5,2,1][7,4,6][3,0,8]]
[[8,2,4][3,0,6][7,5,1]]
[[5,0,4][3,2,6][1,8,7]]
[[5,2,4][3,6,0][1,8,7]]
[[1,2,6][4,7,0][5,8,3]]
[[2,3,4][7,5,6][1,0,8]]
[[5,4,3][7,2,6][1,0,8]]
[[5,3,2][4,6,0][7,1,8]]
[[3,7,4][2,5,6][1,0,8]]
[[7,2,6][1,5,0][4,3,8]]
[[7,2,6][8,5,0][4,1,3]]
[[7,3,0][4,5,2][1,8,6]]
[[0,1,8][4,5,2][7,3,6]]
[[3,2,7][4,5,6][1,0,8]]
[[7,2,3][6,0,5][1,8,4]]
[[2,0,5][4,3,6][7,8,1]]
[[7,6,0][3,2,5][4,8,1]]
[[0,7,6][3,2,5][4,8,1]]
[[7,4,0][5,2,6][3,1,8]]
[[0,7,4][5,2,6][3,1,8]]
[[7,2,0][5,6,4][3,1,8]]
[[7,2,4][5,6,8][3,1,0]]
[[7,6,0][4,2,1][8,5,3]]
[[0,7,6][4,2,1][8,5,3]]
[[0,2,6][7,4,1][8,5,3]]
```

```
[[7,2,6][8,4,1][0,5,3]]
[[8,0,2][3,7,5][4,1,6]]
[[8,7,2][0,3,5][4,1,6]]
[[8,7,2][3,1,5][4,0,6]]
[[2,5,4][0,7,6][1,8,3]]
[[3,7,0][5,6,2][4,8,1]]
[[3,7,2][5,6,1][4,8,0]]
[[3,7,2][5,8,6][4,1,0]]
[[3,7,2][5,8,6][0,4,1]]
[[0,8,2][5,3,6][4,7,1]]
[[5,2,4][0,8,6][1,7,3]]
[[4,0,2][5,7,6][1,8,3]]
[[0,7,1][3,2,5][6,8,4]]
[[7,2,6][5,1,0][4,8,3]]
[[3,0,2][4,7,6][8,5,1]]
[[1,7,0][5,6,2][8,4,3]]
[[1,7,2][5,6,3][8,4,0]]
[[7,2,6][4,1,5][3,0,8]]
[[0,7,3][1,2,5][8,6,4]]
[[8,1,2][0,7,4][3,5,6]]
[[7,0,2][1,8,4][3,5,6]]
[[2,4,6][5,0,7][3,8,1]]
[[2,4,6][5,7,1][3,8,0]]
[[2,7,0][5,6,4][3,8,1]]
[[2,7,4][5,6,1][3,8,0]]
[[2,7,4][5,8,6][0,3,1]]
[[5,4,0][3,2,6][8,7,1]]
[[0,5,4][3,2,6][8,7,1]]
[[5,2,0][3,6,4][8,7,1]]
[[5,2,4][3,6,1][8,7,0]]
[[5,2,0][3,7,4][8,1,6]]
[[5,2,4][3,0,7][8,1,6]]
[[2,4,6][5,0,8][7,3,1]]
[[2,4,6][5,8,1][7,3,0]]
[[2,8,0][5,6,4][7,3,1]]
[[2,8,4][5,6,1][7,3,0]]
[[5,4,6][8,0,2][7,3,1]]
[[5,4,6][8,2,1][7,3,0]]
[[0,5,2][8,6,4][7,3,1]]
[[5,6,2][8,0,4][7,3,1]]
[[5,4,0][7,2,6][1,3,8]]
[[0,5,4][7,2,6][1,3,8]]
[[5,2,0][7,6,4][1,3,8]]
[[5,2,4][7,6,8][1,3,0]]
[[7,5,2][4,0,3][1,6,8]]
[[7,5,2][4,6,3][0,1,8]]
[[7,5,0][4,8,2][1,3,6]]
[[7,5,2][4,0,8][1,3,6]]
[[0,5,2][7,8,6][4,1,3]]
[[7,2,6][4,5,3][0,1,8]]
[[2,4,0][7,3,6][1,5,8]]
[[2,3,4][7,0,6][1,5,8]]
```

```
[[3,0,2][1,7,5][8,6,4]]
[[3,7,2][0,1,5][8,6,4]]
[[3,7,2][1,6,5][8,0,4]]
[[2,4,0][7,1,6][8,5,3]]
[[2,1,4][7,0,6][8,5,3]]
[[4,7,0][8,5,2][3,1,6]]
[[5,1,7][0,4,2][8,3,6]]
[[5,3,0][7,6,2][4,8,1]]
[[5,3,2][7,6,1][4,8,0]]
[[5,3,2][7,8,6][4,1,0]]
[[5,3,2][7,8,6][0,4,1]]
[[7,5,0][2,6,4][3,8,1]]
[[7,5,4][2,6,1][3,8,0]]
[[7,5,4][2,8,6][0,3,1]]
[[7,5,4][3,0,6][8,2,1]]
[[7,5,4][3,2,6][8,1,0]]
[[2,6,0][7,5,1][8,3,4]]
[[8,0,2][3,7,5][6,4,1]]
[[8,7,2][0,3,5][6,4,1]]
[[8,7,2][3,4,5][6,0,1]]
[[2,1,0][7,5,4][8,3,6]]
[[8,1,2][0,3,4][5,7,6]]
[[3,0,2][1,7,8][6,5,4]]
[[3,7,2][1,8,0][6,5,4]]
[[3,7,2][0,1,8][6,5,4]]
[[5,3,0][7,6,2][4,8,1]]
[[5,3,2][7,6,1][4,8,0]]
[[5,3,2][7,8,6][4,1,0]]
[[5,3,2][7,8,6][0,4,1]]
[[2,4,0][5,7,3][1,8,6]]
[[2,7,4][5,0,3][1,8,6]]
[[5,2,4][1,0,3][8,7,6]]
[[5,2,4][1,7,3][8,6,0]]
[[8,5,6][4,0,7][3,2,1]]
[[8,5,6][4,7,1][3,2,0]]
[[4,8,5][3,7,6][0,2,1]]
[[2,4,0][5,7,6][8,1,3]]
[[2,7,4][5,0,6][8,1,3]]
[[5,4,0][7,6,2][1,8,3]]
[[5,4,2][7,6,3][1,8,0]]
[[5,4,2][7,8,6][1,3,0]]
[[5,4,2][7,8,6][0,1,3]]
[[8,4,0][5,6,2][7,3,1]]
[[8,4,2][5,6,1][7,3,0]]
[[3,7,2][6,5,1][8,4,0]]
[[3,4,0][5,2,7][1,8,6]]
[[0,3,4][5,2,7][1,8,6]]
[[3,2,4][5,8,7][1,6,0]]
[[3,2,4][5,8,7][0,1,6]]
[[1,4,0][5,2,7][8,3,6]]
[[1,7,0][5,6,2][8,4,3]]
[[1,7,2][5,6,3][8,4,0]]
```

```
[[1,7,2][3,8,4][5,6,0]]
[[0,5,2][7,1,6][4,3,8]]
[[8,0,2][3,7,4][1,5,6]]
[[8,7,2][3,4,0][1,5,6]]
[[8,7,2][0,3,4][1,5,6]]
[[6,0,2][5,7,1][8,3,4]]
[[6,7,2][5,1,0][8,3,4]]
[[6,7,2][5,3,1][8,0,4]]
[[4,3,5][1,7,2][0,8,6]]
[[8,5,0][4,6,2][3,7,1]]
[[8,5,2][4,6,1][3,7,0]]
[[0,5,2][8,4,6][3,7,1]]
[[8,5,2][3,4,6][0,7,1]]
[[0,5,2][8,7,6][4,3,1]]
[[8,5,2][7,0,6][4,3,1]]
[[0,2,7][8,1,5][4,3,6]]
[[8,2,7][1,0,5][4,3,6]]
[[8,4,0][5,2,1][7,3,6]]
[[0,8,4][5,2,1][7,3,6]]
[[5,8,0][1,6,2][7,4,3]]
[[5,8,2][1,6,3][7,4,0]]
[[8,4,0][5,2,6][3,7,1]]
[[0,8,4][5,2,6][3,7,1]]
[[8,2,0][5,6,4][3,7,1]]
[[8,2,4][5,6,1][3,7,0]]
[[1,0,2][8,7,6][4,5,3]]
[[1,7,2][0,8,6][4,5,3]]
[[1,4,0][5,2,3][7,8,6]]
[[1,2,4][5,8,3][7,6,0]]
[[7,2,3][1,4,0][8,5,6]]
[[7,2,3][0,1,4][8,5,6]]
[[0,2,7][8,5,6][4,3,1]]
[[4,5,2][1,0,6][7,8,3]]
[[4,7,2][8,5,3][0,1,6]]
[[4,7,2][8,5,1][0,6,3]]
[[5,4,3][7,8,2][1,6,0]]
[[5,4,3][7,8,2][0,1,6]]
[[4,8,2][3,5,7][0,1,6]]
[[2,4,0][8,5,7][3,1,6]]
[[5,2,4][0,8,6][1,7,3]]
[[7,0,2][1,4,6][5,8,3]]
[[8,2,4][0,1,6][5,7,3]]
[[5,2,4][0,8,6][1,7,3]]
[[1,4,0][5,6,2][7,8,3]]
[[1,4,2][5,6,3][7,8,0]]
[[1,4,2][5,8,6][7,3,0]]
[[7,2,1][4,6,5][8,0,3]]
[[4,7,8][3,5,2][0,1,6]]
[[4,2,6][5,0,7][8,3,1]]
[[4,2,6][5,7,1][8,3,0]]
[[0,7,2][8,1,6][3,5,4]]
[[7,1,2][8,0,6][3,5,4]]
```

```
[[8,2,6][3,0,7][4,5,1]]
[[8,2,6][3,7,1][4,5,0]]
[[2,8,4][7,5,6][3,0,1]]
[[0,5,2][7,1,3][4,8,6]]
[[7,5,2][1,0,3][4,8,6]]
[[5,6,0][7,2,1][3,8,4]]
[[0,5,6][7,2,1][3,8,4]]
[[0,7,2][8,4,6][3,1,5]]
[[7,4,2][8,0,6][3,1,5]]
[[8,7,0][4,6,2][5,3,1]]
[[8,7,2][4,6,1][5,3,0]]
[[7,1,0][8,2,6][3,4,5]]
[[0,7,1][8,2,6][3,4,5]]
[[0,6,5][7,3,2][4,8,1]]
[[5,2,6][7,0,3][1,4,8]]
[[5,2,6][7,3,8][1,4,0]]
[[7,5,0][1,3,2][4,8,6]]
[[7,5,2][1,0,3][4,8,6]]
[[5,2,6][7,0,4][3,1,8]]
[[4,2,6][5,0,7][8,3,1]]
[[4,2,6][5,7,1][8,3,0]]
[[7,4,0][3,6,5][2,8,1]]
[[7,4,5][3,6,1][2,8,0]]
[[4,2,0][7,6,5][8,3,1]]
[[4,2,5][7,6,1][8,3,0]]
[[5,2,6][7,1,3][8,4,0]]
[[5,1,0][7,2,4][3,8,6]]
[[0,5,1][7,2,4][3,8,6]]
[[5,2,6][7,1,3][8,4,0]]
[[8,4,2][7,5,6][3,0,1]]
[[8,2,4][7,5,1][3,0,6]]
[[1,3,2][5,0,6][7,4,8]]
[[4,2,6][5,0,3][7,8,1]]
[[4,2,6][5,3,1][7,8,0]]
[[5,2,6][3,4,1][7,8,0]]
[[4,5,0][7,6,2][3,8,1]]
[[4,5,2][7,6,1][3,8,0]]
[[5,1,0][7,2,6][8,3,4]]
[[0,5,1][7,2,6][8,3,4]]
[[1,7,0][4,6,2][5,8,3]]
[[1,7,2][4,6,3][5,8,0]]
[[1,7,2][4,8,6][5,3,0]]
[[1,7,2][4,8,6][0,5,3]]
[[1,7,5][2,0,6][4,8,3]]
[[4,0,2][1,5,6][7,8,3]]
[[0,2,3][7,5,6][4,8,1]]
[[8,2,6][4,5,1][3,7,0]]
[[5,6,0][4,2,1][7,8,3]]
[[0,5,6][4,2,1][7,8,3]]
[[4,2,6][7,5,1][3,8,0]]
[[4,0,7][5,6,2][8,3,1]]
[[4,7,2][5,6,1][8,0,3]]
```

```
[[7,6,1][8,2,0][3,5,4]]
[[8,7,6][0,2,1][3,5,4]]
[[8,0,7][3,6,2][4,5,1]]
[[8,7,2][3,6,1][4,0,5]]
[[7,1,4][8,2,0][3,5,6]]
[[8,7,1][0,2,4][3,5,6]]
[[5,7,4][0,2,6][1,8,3]]
[[7,2,4][0,8,6][5,1,3]]
[[3,7,8][0,2,5][1,6,4]]
[[0,2,6][7,3,5][1,4,8]]
[[7,2,6][1,3,5][0,4,8]]
[[7,2,6][3,4,5][0,1,8]]
[[0,2,6][7,1,5][8,4,3]]
[[7,2,6][8,1,5][0,4,3]]
[[7,2,6][1,4,5][8,3,0]]
[[5,0,2][7,4,3][8,1,6]]
[[7,5,2][8,4,3][1,0,6]]
[[5,6,8][7,2,0][3,4,1]]
[[7,5,6][0,2,8][3,4,1]]
[[7,5,2][3,1,0][4,6,8]]
[[7,5,2][0,3,1][4,6,8]]
[[7,5,2][0,6,1][3,4,8]]
[[5,6,4][7,2,0][8,3,1]]
[[7,5,6][0,2,4][8,3,1]]
[[7,2,6][0,5,1][3,4,8]]
[[2,6,5][7,8,0][3,4,1]]
[[2,8,6][0,7,5][3,4,1]]
[[2,8,6][7,4,5][3,0,1]]
[[2,1,5][7,8,0][3,6,4]]
[[2,8,1][0,7,5][3,6,4]]
[[2,8,1][7,6,5][3,0,4]]
[[2,4,5][7,1,0][8,3,6]]
[[2,1,4][0,7,5][8,3,6]]
[[2,1,4][7,3,5][8,0,6]]
[[0,4,2][8,7,6][3,5,1]]
[[4,7,2][3,8,6][0,5,1]]
[[4,0,5][6,7,2][8,3,1]]
[[4,7,5][6,2,0][8,3,1]]
[[4,7,5][6,3,2][8,0,1]]
[[4,7,5][8,6,2][3,0,1]]
[[6,0,5][7,4,2][8,3,1]]
[[5,0,2][7,4,1][8,6,3]]
[[7,5,2][8,4,1][6,0,3]]
[[7,2,6][5,1,4][8,3,0]]
[[7,2,6][5,3,1][8,4,0]]
[[5,0,4][7,3,2][8,1,6]]
[[5,0,2][7,4,3][8,1,6]]
[[5,4,2][0,7,3][8,1,6]]
[[5,4,2][7,1,3][8,0,6]]
[[5,4,8][3,2,0][1,7,6]]
[[3,5,4][0,2,8][1,7,6]]
[[7,5,2][0,1,4][3,6,8]]
```

```
[[5,1,2][7,4,0][3,6,8]]
[[5,1,2][0,7,4][3,6,8]]
[[5,1,2][7,6,4][3,0,8]]
[[5,4,1][7,2,0][3,6,8]]
[[7,5,4][0,2,1][3,6,8]]
[[3,0,5][1,7,2][8,4,6]]
[[3,7,5][1,2,0][8,4,6]]
[[3,7,5][0,1,2][8,4,6]]
[[3,7,5][1,4,0][8,6,2]]
[[5,0,2][1,3,4][8,7,6]]
[[5,3,2][1,4,0][8,7,6]]
[[5,3,2][0,1,4][8,7,6]]
[[5,3,2][1,7,0][8,6,4]]
[[7,2,0][5,4,1][8,3,6]]
[[7,2,1][5,3,4][8,6,0]]
[[5,0,2][8,4,7][3,1,6]]
[[8,5,2][3,4,7][1,0,6]]
[[4,0,7][2,8,5][3,1,6]]
[[4,8,7][2,1,5][3,0,6]]
[[4,8,7][3,2,5][1,0,6]]
[[8,7,5][3,4,1][6,0,2]]
[[7,5,6][0,8,4][3,2,1]]
[[7,5,6][8,2,4][3,0,1]]
[[7,5,6][8,4,1][3,0,2]]
[[7,0,4][2,6,5][8,3,1]]
[[7,4,5][2,6,1][8,0,3]]
[[2,4,1][5,7,0][8,3,6]]
[[2,7,4][5,1,0][8,3,6]]
[[2,7,4][5,3,1][8,0,6]]
[[1,7,2][3,8,5][0,6,4]]
[[1,7,2][8,6,5][3,4,0]]
[[1,7,2][8,6,5][0,3,4]]
[[5,2,4][8,1,3][7,0,6]]
[[7,2,0][3,4,8][1,5,6]]
[[0,2,8][7,3,4][1,5,6]]
[[7,2,8][1,3,4][0,5,6]]
[[0,3,2][5,7,6][1,4,8]]
[[8,4,7][5,2,0][3,1,6]]
[[5,8,4][0,2,7][3,1,6]]
[[7,5,1][0,2,8][3,6,4]]
[[7,5,2][3,4,0][6,1,8]]
[[7,5,2][0,3,4][6,1,8]]
[[7,5,2][0,1,4][3,6,8]]
[[5,0,1][7,6,2][8,4,3]]
[[0,3,2][5,7,1][6,8,4]]
[[3,7,0][5,1,2][6,8,4]]
[[3,7,2][5,1,4][6,8,0]]
[[4,5,2][8,3,6][7,0,1]]
[[5,0,8][4,3,2][7,1,6]]
[[5,0,2][4,8,3][7,1,6]]
[[5,8,2][4,1,3][7,0,6]]
[[7,2,1][0,5,4][3,6,8]]
```

```
[[7,3,2][1,0,4][5,8,6]]
[[0,8,2][5,4,6][1,7,3]]
[[1,3,2][5,8,0][7,6,4]]
[[4,7,2][3,5,6][1,0,8]]
[[7,2,1][6,3,5][8,4,0]]
[[5,0,4][3,6,2][7,8,1]]
[[2,4,1][5,3,0][7,8,6]]
[[2,3,4][5,1,0][7,8,6]]
[[5,4,1][3,2,0][7,8,6]]
[[3,5,4][0,2,1][7,8,6]]
[[5,2,4][3,8,0][7,6,1]]
[[5,2,6][0,7,3][4,8,1]]
[[8,1,2][7,5,4][3,6,0]]
[[5,2,6][0,7,3][4,8,1]]
[[5,2,6][0,7,4][1,8,3]]
[[8,2,6][5,3,4][7,0,1]]
[[8,2,6][5,4,1][7,0,3]]
[[5,0,2][3,1,6][7,4,8]]
[[5,1,2][0,3,6][7,4,8]]
[[3,2,4][0,7,6][5,1,8]]
[[7,0,5][4,1,2][3,8,6]]
[[1,7,2][5,6,3][8,4,0]]
[[3,0,5][4,7,6][1,2,8]]
[[1,0,5][3,7,2][4,8,6]]
[[1,7,5][3,2,0][4,8,6]]
[[7,2,3][4,1,5][8,6,0]]
[[3,7,4][2,0,6][1,5,8]]
[[3,7,4][1,2,6][0,5,8]]
[[7,2,4][3,6,8][0,1,5]]
[[3,0,7][1,4,2][8,5,6]]
[[7,0,2][3,1,4][8,5,6]]
[[3,7,2][8,1,4][5,0,6]]
[[5,6,0][7,4,2][3,8,1]]
[[0,5,6][7,4,2][3,8,1]]
[[0,4,6][5,7,2][3,8,1]]
[[5,4,6][3,7,2][0,8,1]]
[[7,5,2][6,0,4][3,8,1]]
[[7,5,2][3,6,4][0,8,1]]
[[5,6,0][7,4,2][3,8,1]]
[[5,6,2][7,4,1][3,8,0]]
[[0,6,2][5,7,4][3,8,1]]
[[5,6,2][3,7,4][0,8,1]]
[[2,4,5][7,0,3][1,8,6]]
[[0,3,4][2,7,5][1,8,6]]
[[2,3,4][1,7,5][0,8,6]]
[[7,2,4][0,1,6][5,3,8]]
[[7,2,6][4,1,3][8,0,5]]
[[0,8,7][3,5,2][4,1,6]]
[[3,8,2][0,7,1][6,5,4]]
[[8,0,7][3,1,2][6,5,4]]
[[8,7,2][3,1,4][6,0,5]]
[[7,0,2][8,3,1][6,5,4]]
```

```
[[8,7,2][6,3,1][5,0,4]]
[[3,0,7][5,8,2][1,6,4]]
[[3,7,2][5,6,0][1,4,8]]
[[3,7,2][0,6,8][5,1,4]]
[[7,5,4][2,0,3][1,8,6]]
[[7,5,4][1,2,3][0,8,6]]
[[5,2,0][7,8,4][1,6,3]]
[[5,2,4][7,0,8][1,6,3]]
[[0,8,7][4,6,5][3,2,1]]
[[8,6,7][4,0,5][3,2,1]]
[[8,7,5][3,0,6][2,4,1]]
[[8,7,5][3,4,6][2,1,0]]
[[7,5,0][8,2,6][4,3,1]]
[[8,5,0][2,7,6][4,3,1]]
[[0,8,5][2,7,6][4,3,1]]
[[8,7,5][2,3,6][4,1,0]]
[[8,7,5][2,3,6][0,4,1]]
[[7,5,4][2,0,6][8,1,3]]
[[7,5,4][8,2,6][0,1,3]]
[[2,4,8][5,0,1][7,3,6]]
[[2,1,0][5,8,4][7,3,6]]
[[2,1,4][5,3,8][7,6,0]]
[[5,1,0][3,8,2][7,6,4]]
[[5,1,2][3,0,8][7,6,4]]
[[8,2,6][5,4,7][3,1,0]]
[[8,2,6][5,4,7][0,3,1]]
[[8,2,6][5,0,1][3,7,4]]
[[8,2,6][5,7,1][0,3,4]]
[[0,3,2][5,7,6][1,4,8]]
[[0,7,2][3,4,6][5,1,8]]
[[5,6,2][7,0,1][4,8,3]]
[[7,5,0][6,1,2][4,8,3]]
[[7,5,2][6,1,3][4,8,0]]
[[0,7,5][4,6,2][3,1,8]]
[[7,6,5][4,0,2][3,1,8]]
[[7,5,2][4,0,8][3,6,1]]
[[7,5,2][4,6,8][0,3,1]]
[[3,7,0][4,8,5][1,6,2]]
[[3,7,5][4,0,8][1,6,2]]
[[7,5,0][3,4,6][1,2,8]]
[[0,7,5][3,4,6][1,2,8]]
[[0,4,5][7,3,6][1,2,8]]
[[7,4,5][1,3,6][0,2,8]]
[[0,4,5][7,2,6][3,1,8]]
[[7,4,5][2,0,6][3,1,8]]
[[0,3,2][5,7,6][1,4,8]]
[[5,3,2][1,7,6][0,4,8]]
[[8,2,7][3,4,5][1,6,0]]
[[7,5,0][3,4,6][1,2,8]]
[[0,7,5][3,4,6][1,2,8]]
[[0,4,5][7,3,6][1,2,8]]
[[7,4,5][1,3,6][0,2,8]]
```

```
[[0,4,5][7,2,6][3,1,8]]
[[7,4,5][2,0,6][3,1,8]]
[[5,2,6][4,3,8][7,1,0]]
[[7,2,6][4,5,8][0,3,1]]
[[7,2,3][8,1,5][6,0,4]]
[[7,2,3][1,6,0][8,4,5]]
[[0,5,1][4,6,2][7,8,3]]
[[5,6,1][4,0,2][7,8,3]]
[[8,0,6][2,7,5][3,4,1]]
[[8,7,6][2,4,5][3,0,1]]
[[8,7,6][3,2,5][4,0,1]]
[[5,8,7][0,6,2][3,4,1]]
[[8,6,7][5,2,0][3,4,1]]
[[8,6,7][5,4,2][3,0,1]]
[[3,0,7][5,8,2][1,6,4]]
[[7,0,2][3,8,4][5,1,6]]
[[3,0,2][8,7,4][5,1,6]]
[[3,7,2][8,4,0][5,1,6]]
[[3,7,2][8,1,4][5,0,6]]
[[8,0,1][2,7,5][3,6,4]]
[[8,7,1][2,6,5][3,0,4]]
[[8,7,1][3,2,5][6,0,4]]
[[3,7,5][0,6,2][1,4,8]]
[[7,6,5][3,2,0][1,4,8]]
[[7,6,5][0,3,2][1,4,8]]
[[7,6,5][3,4,2][1,0,8]]
[[7,2,6][8,1,4][0,3,5]]
[[7,2,6][3,8,1][5,4,0]]
[[7,5,8][0,6,2][3,4,1]]
[[5,6,8][7,2,0][3,4,1]]
[[5,6,8][0,7,2][3,4,1]]
[[5,6,8][7,4,2][3,0,1]]
[[3,7,5][0,8,2][4,1,6]]
[[7,8,5][3,2,0][4,1,6]]
[[7,8,5][0,3,2][4,1,6]]
[[7,8,5][3,1,2][4,0,6]]
[[5,0,2][7,3,8][4,1,6]]
[[7,5,2][3,1,0][4,6,8]]
[[7,5,2][0,1,8][3,4,6]]
[[7,5,4][0,6,2][8,3,1]]
[[5,6,4][7,2,0][8,3,1]]
[[5,6,4][0,7,2][8,3,1]]
[[5,6,4][7,3,2][8,0,1]]
[[5,0,2][7,4,1][8,6,3]]
[[5,4,2][7,1,0][8,6,3]]
[[5,4,2][0,7,1][8,6,3]]
[[2,0,8][5,4,7][3,1,6]]
[[2,4,8][5,1,7][3,0,6]]
[[2,0,7][5,8,4][3,1,6]]
[[2,7,4][5,1,0][3,6,8]]
[[2,7,4][0,1,8][5,3,6]]
[[3,8,2][7,0,6][4,5,1]]
```

```
[[7,3,2][8,0,6][4,5,1]]
[[7,2,1][3,8,4][5,6,0]]
[[4,0,5][3,8,2][1,7,6]]
[[4,8,5][3,2,0][1,7,6]]
[[4,8,5][0,3,2][1,7,6]]
[[4,8,5][3,7,0][1,6,2]]
[[7,5,2][8,1,0][4,3,6]]
[[7,1,5][8,2,0][4,3,6]]
[[7,1,5][0,8,2][4,3,6]]
[[7,1,5][8,3,2][4,0,6]]
[[8,5,2][1,7,0][4,3,6]]
[[8,0,7][1,2,5][4,3,6]]
[[8,7,5][1,3,0][4,6,2]]
[[8,7,4][0,6,5][3,2,1]]
[[7,6,4][0,8,5][3,2,1]]
[[7,6,4][8,2,5][3,0,1]]
[[7,5,8][0,6,2][3,4,1]]
[[5,6,8][7,2,0][3,4,1]]
[[5,6,8][0,7,2][3,4,1]]
[[5,6,8][7,4,2][3,0,1]]
[[7,5,4][2,1,0][8,3,6]]
[[7,5,4][2,3,1][8,0,6]]
[[7,5,4][8,2,1][3,0,6]]
[[7,6,5][1,2,0][8,4,3]]
[[7,6,5][0,1,2][8,4,3]]
[[7,6,5][1,4,2][8,0,3]]
[[1,4,7][8,0,2][3,5,6]]
[[1,7,2][3,8,4][5,6,0]]
[[8,5,4][2,3,6][7,0,1]]
[[5,2,4][8,1,0][7,6,3]]
[[5,2,4][0,8,1][7,6,3]]
[[7,2,8][1,0,5][6,3,4]]
[[7,2,8][1,3,5][6,4,0]]
[[7,2,0][3,6,8][1,4,5]]
[[0,2,8][7,6,5][3,1,4]]
[[7,2,8][6,0,5][3,1,4]]
[[5,2,4][1,7,6][3,0,8]]
[[7,6,5][4,2,0][1,8,3]]
[[7,2,6][0,5,8][3,1,4]]
[[5,6,8][4,2,0][7,3,1]]
[[5,6,8][4,3,2][7,0,1]]
[[5,0,2][4,8,1][7,6,3]]
[[5,8,2][4,1,0][7,6,3]]
[[3,4,0][2,7,5][1,8,6]]
[[0,3,4][2,7,5][1,8,6]]
[[0,2,4][7,3,8][1,6,5]]
[[7,2,4][1,3,8][0,6,5]]
[[7,2,4][3,6,8][0,1,5]]
[[7,2,4][0,1,6][5,3,8]]
[[7,2,6][4,1,3][8,0,5]]
[[0,3,7][1,5,2][8,6,4]]
[[5,8,7][0,1,2][3,6,4]]
```

```
[[8,1,7][5,2,0][3,6,4]]
[[8,1,7][5,6,2][3,0,4]]
[[7,0,2][8,6,1][5,3,4]]
[[8,0,2][6,7,1][5,3,4]]
[[8,7,2][6,1,0][5,3,4]]
[[8,7,2][6,3,1][5,0,4]]
[[7,3,0][4,2,5][8,1,6]]
[[7,3,5][4,1,2][8,6,0]]
[[7,2,4][0,8,6][5,1,3]]
[[5,2,6][3,0,8][4,7,1]]
[[5,2,6][3,7,8][4,1,0]]
[[5,2,6][7,0,4][3,1,8]]
[[3,7,5][6,0,2][4,8,1]]
[[7,6,0][3,2,5][4,8,1]]
[[7,6,5][3,2,1][4,8,0]]
[[0,6,5][7,3,2][4,8,1]]
[[5,2,6][8,0,4][3,7,1]]
[[5,2,6][8,7,4][3,1,0]]
[[5,2,6][7,0,3][8,1,4]]
[[5,2,6][7,1,3][8,4,0]]
[[0,2,6][5,7,1][8,4,3]]
[[5,2,6][8,7,1][0,4,3]]
[[7,2,6][3,0,8][4,1,5]]
[[0,2,6][7,8,4][3,1,5]]
[[7,2,6][3,8,4][0,1,5]]
[[7,2,6][8,1,4][0,3,5]]
[[7,0,5][2,8,4][3,1,6]]
[[7,5,4][2,1,0][3,6,8]]
[[7,5,4][0,1,8][2,3,6]]
[[7,5,4][3,8,0][1,2,6]]
[[7,5,4][0,3,8][1,2,6]]
[[7,5,4][3,2,0][1,6,8]]
[[7,4,2][8,0,6][5,3,1]]
[[5,3,7][1,4,2][0,8,6]]
[[3,4,0][5,2,7][1,8,6]]
[[7,2,0][3,8,1][6,4,5]]
[[7,2,1][3,0,8][6,4,5]]
[[7,2,1][6,3,5][8,4,0]]
[[7,2,0][8,1,4][3,6,5]]
[[7,2,4][8,0,1][3,6,5]]
[[0,2,4][7,1,3][8,6,5]]
[[7,2,4][8,1,3][0,6,5]]
[[1,4,0][5,2,7][8,3,6]]
[[1,4,7][5,3,2][8,6,0]]
[[1,3,7][5,0,2][8,6,4]]
[[1,7,2][5,6,3][8,4,0]]
[[7,6,5][4,0,1][8,2,3]]
[[7,6,0][4,3,5][8,1,2]]
[[7,6,5][4,0,3][8,1,2]]
[[0,7,5][4,1,2][8,6,3]]
[[7,1,5][4,0,2][8,6,3]]
[[0,3,2][5,7,6][1,4,8]]
```

```
[[5,3,2][1,7,6][0,4,8]]
[[0,5,2][7,1,6][4,3,8]]
[[0,4,2][5,7,6][3,1,8]]
[[5,4,2][3,7,6][0,1,8]]
[[5,4,2][7,1,6][0,3,8]]
[[8,5,2][6,7,0][3,4,1]]
[[6,8,5][0,7,2][3,4,1]]
[[8,0,7][6,2,5][3,4,1]]
[[8,7,5][6,2,1][3,0,4]]
[[8,7,5][6,4,0][3,1,2]]
[[8,7,5][0,4,2][6,3,1]]
[[8,0,5][3,7,2][4,6,1]]
[[8,7,5][3,2,0][4,6,1]]
[[8,7,5][0,3,2][4,6,1]]
[[8,7,5][3,6,0][4,1,2]]
[[7,0,5][8,6,1][3,2,4]]
[[7,6,5][8,1,0][3,2,4]]
[[7,6,5][0,8,1][3,2,4]]
[[7,6,5][0,2,1][8,3,4]]
[[6,5,2][7,8,0][3,4,1]]
[[6,8,5][7,2,0][3,4,1]]
[[6,8,5][0,7,2][3,4,1]]
[[6,8,5][7,4,2][3,0,1]]
[[7,6,5][3,8,0][4,1,2]]
[[7,0,6][8,4,5][3,1,2]]
[[7,0,5][8,6,4][3,1,2]]
[[7,6,5][0,8,4][3,1,2]]
[[7,6,5][8,1,4][3,0,2]]
[[6,0,5][7,4,2][8,3,1]]
[[8,5,2][0,3,7][1,4,6]]
[[8,5,2][3,4,7][1,0,6]]
[[3,0,5][7,8,2][1,4,6]]
[[3,8,5][7,2,0][1,4,6]]
[[3,8,5][7,4,2][1,0,6]]
[[3,8,5][1,7,2][4,0,6]]
[[3,8,7][0,2,5][1,4,6]]
[[7,5,2][8,3,0][1,4,6]]
[[7,3,5][8,2,0][1,4,6]]
[[7,3,5][0,8,2][1,4,6]]
[[7,3,5][8,4,2][1,0,6]]
[[8,7,5][1,3,0][4,6,2]]
[[3,8,7][0,4,5][1,6,2]]
[[8,4,7][0,3,5][1,6,2]]
[[8,4,7][3,6,5][1,0,2]]
[[8,5,4][3,7,0][1,6,2]]
[[3,8,5][0,7,4][1,6,2]]
[[7,0,5][8,3,4][1,6,2]]
[[8,7,5][1,3,4][6,0,2]]
[[8,7,5][3,6,0][1,2,4]]
[[8,7,5][0,6,4][3,1,2]]
[[8,4,5][2,7,0][3,1,6]]
[[2,8,4][0,7,5][3,1,6]]
```

```
[[8,7,4][2,1,0][3,6,5]]
[[8,7,4][0,1,5][2,3,6]]
[[8,0,4][3,7,5][1,2,6]]
[[8,7,4][0,3,5][1,2,6]]
[[8,7,4][3,2,0][1,6,5]]
[[4,5,2][3,7,8][1,0,6]]
[[4,5,2][7,1,0][3,6,8]]
[[7,4,8][0,2,5][3,1,6]]
[[4,0,5][3,8,2][1,7,6]]
[[4,8,5][3,2,0][1,7,6]]
[[4,8,5][0,3,2][1,7,6]]
[[4,8,5][3,7,0][1,6,2]]
[[4,0,8][7,1,5][3,6,2]]
[[4,8,5][0,7,1][3,6,2]]
[[4,8,5][7,6,1][3,0,2]]
[[3,7,4][0,8,5][1,6,2]]
[[7,8,4][0,3,5][1,6,2]]
[[7,8,4][3,6,5][1,0,2]]
[[7,5,8][3,4,0][1,6,2]]
[[3,7,5][0,4,8][1,6,2]]
[[4,0,5][7,3,8][1,6,2]]
[[7,4,5][1,3,8][6,0,2]]
[[7,4,5][3,6,0][1,2,8]]
[[7,4,5][0,6,8][3,1,2]]
[[8,0,4][1,7,5][3,6,2]]
[[8,7,4][1,6,5][3,0,2]]
[[8,7,4][3,1,5][6,0,2]]
[[7,1,4][3,8,5][6,0,2]]
[[7,1,4][8,6,0][3,2,5]]
[[7,1,4][0,6,5][8,3,2]]
[[7,5,1][0,8,4][3,6,2]]
[[7,5,1][8,6,4][3,0,2]]
[[7,5,1][8,4,2][3,0,6]]
[[8,7,5][3,4,1][6,0,2]]
[[4,5,1][7,8,0][3,6,2]]
[[4,8,5][0,7,1][3,6,2]]
[[4,8,5][7,6,1][3,0,2]]
[[7,4,5][3,8,0][6,2,1]]
[[4,0,5][7,6,1][8,3,2]]
[[7,0,5][6,4,1][8,3,2]]
[[7,4,5][6,1,0][8,3,2]]
[[7,4,5][6,3,1][8,0,2]]
[[4,5,2][0,7,1][8,3,6]]
[[4,5,2][7,3,1][8,0,6]]
[[4,0,1][7,2,5][8,3,6]]
[[4,1,5][8,7,2][3,0,6]]
[[4,1,5][7,3,0][8,6,2]]
[[7,0,4][1,3,5][8,6,2]]
[[7,0,5][1,4,3][8,6,2]]
[[7,4,5][0,1,3][8,6,2]]
[[7,4,5][1,6,3][8,0,2]]
[[7,5,8][3,2,0][1,4,6]]
```

```
[[7,5,8][0,3,2][1,4,6]]
[[7,5,8][3,4,0][1,6,2]]
[[4,8,2][5,7,0][3,1,6]]
[[4,7,8][5,2,0][3,1,6]]
[[4,7,8][5,1,2][3,0,6]]
[[5,4,8][3,2,0][1,7,6]]
[[5,4,8][0,3,2][1,7,6]]
[[5,4,8][3,7,0][1,6,2]]
[[5,0,4][7,1,8][3,6,2]]
[[5,0,8][7,4,1][3,6,2]]
[[5,4,8][0,7,1][3,6,2]]
[[5,4,8][7,6,1][3,0,2]]
[[5,8,7][0,4,2][3,1,6]]
[[8,4,7][5,2,0][3,1,6]]
[[8,4,7][5,1,2][3,0,6]]
[[7,0,2][8,1,4][5,3,6]]
[[8,0,2][1,7,4][5,3,6]]
[[8,7,2][1,4,0][5,3,6]]
[[8,7,2][1,3,4][5,0,6]]
[[3,5,2][8,4,0][1,7,6]]
[[3,5,2][8,7,4][1,0,6]]
[[3,5,8][0,4,2][1,7,6]]
[[5,4,8][3,2,0][1,7,6]]
[[5,4,8][0,3,2][1,7,6]]
[[8,3,2][5,4,0][1,7,6]]
[[8,3,2][5,7,4][1,0,6]]
[[3,5,8][0,7,2][1,6,4]]
[[5,7,8][3,2,0][1,6,4]]
[[5,7,8][0,3,2][1,6,4]]
[[5,7,8][3,6,2][1,0,4]]
[[3,5,2][0,8,7][1,6,4]]
[[8,0,2][5,3,7][1,6,4]]
[[5,8,2][1,3,7][6,0,4]]
[[5,8,2][3,6,0][1,4,7]]
[[5,8,2][0,6,7][3,1,4]]
[[7,5,8][1,2,0][3,6,4]]
[[7,5,8][1,6,2][3,0,4]]
[[7,5,8][3,1,2][6,0,4]]
[[5,1,8][7,2,4][3,0,6]]
[[5,1,8][3,7,2][6,0,4]]
[[5,1,8][7,6,0][3,4,2]]
[[5,0,2][3,8,1][6,7,4]]
[[5,8,2][3,1,0][6,7,4]]
[[5,8,2][0,3,1][6,7,4]]
[[5,8,2][3,7,0][6,4,1]]
[[3,5,2][8,7,0][1,6,4]]
[[8,3,5][0,7,2][1,6,4]]
[[3,0,7][8,2,5][1,6,4]]
[[3,7,5][8,2,4][1,0,6]]
[[3,7,5][8,6,0][1,4,2]]
[[3,7,5][0,6,2][8,1,4]]
[[3,7,5][1,8,0][6,4,2]]
```

```
[[3,7,8][0,2,5][1,6,4]]
[[7,0,5][3,8,4][1,2,6]]
[[7,8,5][3,4,0][1,2,6]]
[[7,8,5][0,3,4][1,2,6]]
[[7,8,5][0,2,4][3,1,6]]
[[8,5,2][7,3,0][1,6,4]]
[[8,3,5][7,2,0][1,6,4]]
[[8,3,5][0,7,2][1,6,4]]
[[8,3,5][7,6,2][1,0,4]]
[[7,0,5][1,8,2][6,3,4]]
[[7,8,5][1,2,0][6,3,4]]
[[7,8,5][0,1,2][6,3,4]]
[[7,8,5][1,3,0][6,4,2]]
[[7,0,8][3,6,5][1,4,2]]
[[8,0,5][7,6,2][3,1,4]]
[[7,0,5][6,8,2][3,1,4]]
[[7,8,5][6,2,0][3,1,4]]
[[7,8,5][6,1,2][3,0,4]]
[[5,3,2][1,7,8][6,0,4]]
[[5,3,2][7,6,0][1,4,8]]
[[7,0,5][1,8,2][6,3,4]]
[[7,5,2][1,8,4][6,0,3]]
[[5,0,2][7,1,8][6,3,4]]
[[7,0,5][1,3,2][6,4,8]]
[[7,5,2][0,1,3][6,4,8]]
[[7,5,2][1,4,3][6,0,8]]
[[3,7,5][0,6,2][1,4,8]]
[[7,6,5][3,2,0][1,4,8]]
[[7,6,5][0,3,2][1,4,8]]
[[7,6,5][3,4,2][1,0,8]]
[[5,6,2][7,8,0][3,1,4]]
[[5,6,2][0,7,8][3,1,4]]
[[5,6,2][7,1,8][3,0,4]]
[[7,0,5][6,8,2][3,1,4]]
[[7,5,2][6,8,4][3,0,1]]
[[7,5,2][6,1,0][3,4,8]]
[[8,5,2][0,1,7][3,6,4]]
[[8,5,2][1,6,7][3,0,4]]
[[8,5,2][1,7,4][3,0,6]]
[[8,0,5][1,7,4][3,2,6]]
[[8,7,5][1,4,0][3,2,6]]
[[8,7,5][0,1,4][3,2,6]]
[[8,7,5][0,2,4][1,3,6]]
[[8,0,7][1,6,5][3,4,2]]
[[7,0,5][8,6,2][1,3,4]]
[[8,0,5][6,7,2][1,3,4]]
[[8,7,5][6,2,0][1,3,4]]
[[8,7,5][6,3,2][1,0,4]]
[[8,5,2][3,7,0][6,1,4]]
[[3,8,5][0,7,2][6,1,4]]
[[8,0,7][3,2,5][6,1,4]]
[[8,7,5][3,2,4][6,0,1]]
```

```
[[7,0,5][8,3,2][6,1,4]]
[[8,7,5][6,3,2][1,0,4]]
[[8,0,7][3,1,5][6,4,2]]
[[8,0,5][3,7,1][6,4,2]]
[[8,7,5][0,3,1][6,4,2]]
[[8,7,5][3,4,1][6,0,2]]
[[8,0,1][2,7,5][3,6,4]]
[[8,7,1][2,6,5][3,0,4]]
[[8,7,1][3,2,5][6,0,4]]
[[7,5,4][8,1,0][3,2,6]]
[[8,7,5][0,1,4][3,2,6]]
[[7,0,1][8,4,5][3,2,6]]
[[7,1,5][3,8,4][2,0,6]]
[[7,0,5][2,1,4][8,3,6]]
[[7,1,5][2,4,0][8,3,6]]
[[7,1,5][2,3,4][8,0,6]]
[[7,0,1][3,8,5][6,4,2]]
[[7,0,5][3,1,8][6,4,2]]
[[7,1,5][0,3,8][6,4,2]]
[[7,1,5][3,4,8][6,0,2]]
[[8,7,1][0,6,5][3,4,2]]
[[7,6,1][0,8,5][3,4,2]]
[[7,6,1][8,4,5][3,0,2]]
[[6,7,5][0,1,2][8,3,4]]
[[7,0,1][6,2,5][8,3,4]]
[[7,1,5][6,2,4][8,0,3]]
[[7,1,5][6,3,0][8,4,2]]
[[5,0,2][3,8,1][6,7,4]]
[[5,8,2][3,1,0][6,7,4]]
[[5,8,2][0,3,1][6,7,4]]
[[5,8,2][3,7,0][6,4,1]]
[[3,7,5][0,8,2][6,4,1]]
[[7,8,5][3,2,0][6,4,1]]
[[7,8,5][0,3,2][6,4,1]]
[[7,8,5][3,4,2][6,0,1]]
[[5,0,2][7,3,8][6,4,1]]
[[7,5,2][6,3,8][4,0,1]]
[[7,5,2][3,4,0][6,1,8]]
[[7,5,2][0,4,8][3,6,1]]
[[5,0,6][7,1,2][8,3,4]]
[[5,6,2][7,1,4][8,0,3]]
[[6,0,2][5,7,1][8,3,4]]
[[5,6,2][8,7,1][3,0,4]]
[[5,6,2][7,3,0][8,4,1]]
[[6,7,5][0,1,2][8,3,4]]
[[7,5,2][6,4,0][8,1,3]]
[[7,5,2][0,6,4][8,1,3]]
[[7,0,5][6,3,2][8,4,1]]
[[7,5,2][0,6,3][8,4,1]]
[[7,5,2][6,4,3][8,0,1]]
[[7,5,1][8,4,2][3,0,6]]
[[4,0,1][5,7,2][8,3,6]]
```

```
[[5,4,1][8,7,2][3,0,6]]
[[5,4,1][7,3,0][8,6,2]]
[[8,5,2][0,1,4][3,7,6]]
[[5,0,1][8,4,2][3,7,6]]
[[5,0,1][8,7,2][3,6,4]]
[[5,0,2][8,1,7][3,6,4]]
[[5,1,2][0,8,7][3,6,4]]
[[5,1,2][8,6,7][3,0,4]]
[[7,5,1][0,3,2][8,6,4]]
[[5,3,1][7,2,0][8,6,4]]
[[5,3,1][0,7,2][8,6,4]]
[[5,3,1][7,6,2][8,0,4]]
[[5,1,2][8,7,3][6,0,4]]
[[7,0,4][1,3,5][8,6,2]]
[[7,0,5][1,4,3][8,6,2]]
[[7,4,5][0,1,3][8,6,2]]
[[7,4,5][1,6,3][8,0,2]]
[[7,3,5][1,2,4][8,0,6]]
[[3,0,5][7,1,2][8,6,4]]
[[7,3,5][8,1,2][6,0,4]]
[[7,3,5][1,6,0][8,4,2]]
[[7,5,2][8,3,0][6,1,4]]
[[7,5,2][0,8,3][6,1,4]]
[[7,5,2][8,1,0][6,4,3]]
[[0,5,2][3,8,6][4,7,1]]
[[0,8,2][5,3,6][4,7,1]]
[[0,5,2][8,4,6][3,7,1]]
[[0,4,2][5,8,6][3,7,1]]
[[5,4,2][3,8,6][0,7,1]]
[[0,2,4][5,3,7][1,6,8]]
[[5,2,4][1,3,7][0,6,8]]
[[5,2,4][3,6,7][0,1,8]]
[[5,2,4][3,0,1][6,7,8]]
[[4,5,2][7,0,3][1,8,6]]
[[4,3,0][7,2,5][1,8,6]]
[[4,3,5][1,7,2][0,8,6]]
[[0,8,7][3,5,2][6,4,1]]
[[8,5,0][4,1,2][3,6,7]]
[[8,5,2][4,0,1][3,6,7]]
[[8,1,7][4,6,5][3,2,0]]
[[8,1,7][4,6,5][0,3,2]]
[[8,5,1][4,0,7][3,6,2]]
[[8,5,1][4,7,2][3,6,0]]
[[8,7,5][3,0,6][2,4,1]]
[[8,7,5][3,4,6][2,1,0]]
[[4,8,5][3,7,6][0,2,1]]
[[2,7,5][8,4,6][0,3,1]]
[[0,5,2][3,8,6][4,7,1]]
[[0,8,2][5,3,6][4,7,1]]
[[0,2,4][5,8,1][3,7,6]]
[[5,2,4][3,8,1][0,7,6]]
[[5,2,0][8,7,4][3,6,1]]
```

```
[[5,2,4][8,0,7][3,6,1]]
[[0,2,4][5,7,3][8,6,1]]
[[5,2,4][8,7,3][0,6,1]]
[[0,5,2][7,8,6][4,1,3]]
[[0,8,1][5,4,2][7,3,6]]
[[8,4,1][5,0,2][7,3,6]]
[[8,1,0][5,3,2][7,6,4]]
[[8,1,2][5,0,3][7,6,4]]
[[5,4,8][1,3,2][7,6,0]]
[[0,5,8][1,3,2][7,6,4]]
[[5,3,8][1,0,2][7,6,4]]
[[0,5,2][1,8,3][7,6,4]]
[[0,8,2][5,1,3][7,6,4]]
[[5,8,2][1,6,3][7,4,0]]
[[3,7,0][1,5,2][6,4,8]]
[[5,2,4][0,8,6][1,7,3]]
[[4,0,2][5,7,6][1,8,3]]
[[4,5,2][7,0,3][1,8,6]]
[[4,3,0][7,2,5][1,8,6]]
[[4,3,5][1,7,2][0,8,6]]
[[8,2,0][5,1,4][3,6,7]]
[[8,2,4][5,0,1][3,6,7]]
[[0,2,4][8,1,7][5,3,6]]
[[8,2,4][1,0,7][5,3,6]]
[[5,2,1][3,0,8][6,7,4]]
[[5,2,1][3,7,8][6,4,0]]
[[5,2,0][7,6,1][3,4,8]]
[[3,7,5][6,1,2][0,8,4]]
[[5,3,0][7,1,2][6,8,4]]
[[5,3,2][7,1,4][6,8,0]]
[[0,3,2][5,7,1][6,8,4]]
[[5,3,2][6,7,1][0,8,4]]
[[5,1,2][8,0,6][4,7,3]]
[[5,1,2][8,7,6][4,3,0]]
[[5,2,4][0,1,3][7,6,8]]
[[5,2,4][1,6,3][7,0,8]]
[[3,5,2][1,4,0][7,8,6]]
[[3,5,1][0,4,2][7,8,6]]
[[5,4,1][3,2,0][7,8,6]]
[[1,2,4][5,3,0][8,6,7]]
[[1,0,7][3,4,2][5,8,6]]
[[8,7,0][3,5,2][1,6,4]]
[[1,5,2][3,7,8][0,6,4]]
[[1,5,2][7,6,8][3,4,0]]
[[1,5,2][7,6,8][0,3,4]]
[[1,8,5][7,0,4][3,2,6]]
[[1,8,5][7,2,4][0,3,6]]
[[1,8,5][3,0,2][6,7,4]]
[[1,8,5][3,7,2][6,4,0]]
[[1,8,0][7,6,5][3,4,2]]
[[6,7,2][8,5,1][3,4,0]]
[[1,5,0][8,7,2][3,4,6]]
```

```
[[1,7,0][8,2,5][3,4,6]]
[[1,7,5][3,8,2][0,4,6]]
[[1,7,0][8,4,5][3,6,2]]
[[1,7,5][8,0,4][3,6,2]]
[[8,2,7][4,6,1][3,0,5]]
[[8,2,4][5,3,0][7,6,1]]
[[8,0,2][5,1,6][7,4,3]]
[[8,2,4][7,3,6][5,0,1]]
[[1,5,2][4,3,7][8,0,6]]
[[1,0,7][4,3,5][8,6,2]]
[[1,0,5][4,7,3][8,6,2]]
[[1,7,5][4,6,3][8,0,2]]
[[8,2,1][5,6,7][3,4,0]]
[[8,2,1][5,6,7][0,3,4]]
[[8,2,1][5,0,4][3,7,6]]
[[8,2,1][5,7,4][0,3,6]]
[[5,8,0][7,4,6][3,2,1]]
[[0,5,8][7,4,6][3,2,1]]
[[0,4,8][5,7,6][3,2,1]]
[[5,4,8][3,7,6][0,2,1]]
[[8,5,0][3,7,6][1,2,4]]
[[0,8,5][3,7,6][1,2,4]]
[[0,7,5][8,3,6][1,2,4]]
[[8,7,5][1,3,6][0,2,4]]
[[0,7,5][8,2,6][3,1,4]]
[[8,7,5][2,0,6][3,1,4]]
[[4,8,5][3,7,6][0,2,1]]
[[7,5,0][1,4,6][8,2,3]]
[[0,7,5][1,4,6][8,2,3]]
[[0,4,5][7,1,6][8,2,3]]
[[7,4,5][8,1,6][0,2,3]]
[[0,7,5][4,2,8][3,1,6]]
[[7,5,0][4,1,8][3,6,2]]
[[7,5,8][4,0,1][3,6,2]]
[[5,8,0][7,4,6][3,2,1]]
[[0,5,8][7,4,6][3,2,1]]
[[0,4,8][5,7,6][3,2,1]]
[[5,4,8][3,7,6][0,2,1]]
[[0,5,2][3,8,6][1,4,7]]
[[0,8,2][5,3,6][1,4,7]]
[[5,8,2][1,3,6][0,4,7]]
[[0,8,2][5,4,6][3,1,7]]
[[0,2,8][5,7,3][1,6,4]]
[[5,2,8][1,7,3][0,6,4]]
[[5,2,8][7,6,3][1,4,0]]
[[5,2,8][7,6,3][0,1,4]]
[[5,2,8][7,0,4][1,3,6]]
[[5,2,8][7,3,4][0,1,6]]
[[3,7,5][6,1,2][0,8,4]]
[[0,7,1][3,2,5][6,8,4]]
[[8,7,5][3,1,6][0,4,2]]
[[7,1,5][3,8,6][4,2,0]]
```

```
[[0,1,5][7,4,6][8,3,2]]
[[5,2,1][7,0,4][8,6,3]]
[[7,5,0][1,4,6][8,2,3]]
[[0,7,5][1,4,6][8,2,3]]
[[0,4,5][7,1,6][8,2,3]]
[[7,4,5][8,1,6][0,2,3]]
[[5,6,2][7,0,3][1,8,4]]
[[7,5,0][6,3,2][1,8,4]]
[[7,5,2][6,3,4][1,8,0]]
[[4,0,3][5,7,2][1,8,6]]
[[1,0,5][8,4,2][7,3,6]]
[[1,5,2][8,3,0][7,6,4]]
[[8,2,4][3,5,0][1,6,7]]
[[1,7,2][8,5,0][6,4,3]]
[[1,5,0][4,7,6][8,2,3]]
[[1,4,0][2,7,5][8,3,6]]
[[1,7,4][2,3,5][8,6,0]]
[[1,7,4][8,0,5][3,2,6]]
[[1,7,4][8,2,5][3,6,0]]
[[4,0,2][3,7,6][5,8,1]]
[[2,7,4][3,5,8][1,6,0]]
[[3,8,2][5,0,4][7,1,6]]
[[0,5,2][8,3,4][7,1,6]]
[[5,3,0][8,4,2][7,1,6]]
[[5,3,2][8,1,4][7,6,0]]
[[7,2,1][0,4,6][8,3,5]]
[[1,2,4][0,8,7][3,5,6]]
[[1,0,2][8,7,6][3,4,5]]
[[1,7,2][0,8,6][3,4,5]]
[[1,7,2][0,4,6][8,3,5]]
[[8,4,0][2,5,6][7,3,1]]
[[7,2,1][3,8,6][4,0,5]]
[[7,2,1][0,4,6][8,3,5]]
[[0,8,7][2,5,4][3,1,6]]
[[7,4,2][3,5,8][0,1,6]]
[[4,5,0][1,8,2][7,3,6]]
[[0,4,5][1,8,2][7,3,6]]
[[4,8,0][1,2,5][7,3,6]]
[[4,8,5][1,3,2][7,6,0]]
[[0,7,1][8,5,4][3,6,2]]
[[7,1,4][8,5,2][0,3,6]]
[[4,8,0][5,1,2][7,3,6]]
[[4,1,8][5,0,2][7,3,6]]
[[5,4,8][1,3,2][7,6,0]]
[[8,6,2][5,0,1][7,3,4]]
[[0,5,2][6,8,1][7,3,4]]
[[5,8,0][6,1,2][7,3,4]]
[[5,8,2][6,1,4][7,3,0]]
[[5,8,2][6,3,1][7,4,0]]
[[6,7,2][3,5,8][0,1,4]]
[[1,8,5][3,0,2][6,7,4]]
[[1,8,5][3,7,2][6,4,0]]
```

```
[[1,5,2][7,6,4][8,3,0]]
[[1,6,0][7,2,5][8,3,4]]
[[1,6,5][7,2,4][8,3,0]]
[[1,6,5][8,7,2][0,3,4]]
[[1,6,5][7,3,2][8,4,0]]
[[8,6,2][5,0,1][7,3,4]]
[[0,5,2][6,8,1][7,3,4]]
[[5,8,0][6,1,2][7,3,4]]
[[5,8,2][6,1,4][7,3,0]]
[[5,8,2][6,3,1][7,4,0]]
[[3,7,2][6,5,8][0,4,1]]
[[1,5,0][3,7,2][8,6,4]]
[[1,7,0][3,2,5][8,6,4]]
[[1,7,5][3,2,4][8,6,0]]
[[1,7,5][3,6,2][8,4,0]]
[[1,7,5][8,0,2][6,3,4]]
[[1,7,5][8,3,2][6,4,0]]
[[5,2,4][0,8,6][3,1,7]]
[[3,7,5][0,4,6][2,8,1]]
[[4,0,5][7,3,6][2,8,1]]
[[4,2,5][8,7,6][3,0,1]]
[[4,0,5][7,3,6][2,8,1]]
[[8,0,2][5,1,6][7,4,3]]
[[5,2,1][0,7,3][6,8,4]]
[[1,2,4][8,5,7][3,6,0]]
[[4,0,5][7,2,6][1,8,3]]
[[7,0,5][2,4,6][1,8,3]]
[[5,2,4][0,8,6][3,1,7]]
[[5,2,1][8,7,6][3,0,4]]
[[4,0,5][7,2,6][1,8,3]]
[[7,0,5][2,4,6][1,8,3]]
[[5,2,6][3,4,1][7,8,0]]
[[8,7,4][0,5,6][2,3,1]]
[[8,5,2][4,1,0][7,3,6]]
[[8,1,5][4,2,0][7,3,6]]
[[8,1,5][4,3,2][7,0,6]]
[[7,2,8][1,5,4][6,0,3]]
[[7,2,8][6,5,4][3,0,1]]
[[7,2,8][3,5,1][6,0,4]]
[[7,4,2][3,5,6][0,8,1]]
[[3,2,4][1,0,7][8,5,6]]
[[3,7,2][1,0,6][8,4,5]]
[[1,0,4][2,7,6][8,5,3]]
[[1,7,4][8,2,6][5,0,3]]
[[5,2,4][6,1,0][7,3,8]]
[[5,2,4][6,3,1][7,0,8]]
[[8,2,1][3,0,7][6,5,4]]
[[8,2,1][3,7,4][6,5,0]]
[[3,2,8][5,0,7][1,6,4]]
[[3,2,8][5,7,4][1,6,0]]
[[5,2,4][8,1,3][7,0,6]]
[[1,5,4][2,8,0][7,3,6]]
```

```
[[1,5,4][2,3,8][7,0,6]]
[[8,2,6][3,5,7][4,0,1]]
[[6,7,2][0,5,1][4,8,3]]
[[3,0,2][5,4,6][7,1,8]]
[[0,2,3][7,6,5][1,8,4]]
[[7,2,3][6,0,5][1,8,4]]
[[7,5,2][4,0,8][1,3,6]]
[[7,5,2][4,3,8][1,6,0]]
[[2,4,8][5,0,6][3,7,1]]
[[2,4,8][5,7,6][0,3,1]]
[[2,7,4][5,8,6][0,3,1]]
[[8,7,5][1,0,6][4,2,3]]
[[8,7,5][1,2,6][0,4,3]]
[[5,4,1][7,0,6][8,2,3]]
[[0,2,6][7,5,3][1,8,4]]
[[3,0,7][2,5,4][1,8,6]]
[[5,2,6][8,1,0][7,3,4]]
[[5,2,6][8,3,1][7,0,4]]
[[7,5,4][2,8,6][0,3,1]]
[[4,0,7][3,5,2][1,8,6]]
[[1,4,7][8,5,2][3,0,6]]
[[8,5,2][3,0,6][1,7,4]]
[[8,5,2][3,7,6][0,1,4]]
[[0,2,7][8,3,5][1,4,6]]
[[8,2,7][1,3,5][0,4,6]]
[[8,2,7][3,4,5][1,6,0]]
[[5,7,2][4,0,8][3,1,6]]
[[4,2,8][3,7,5][0,1,6]]
[[4,2,8][7,1,5][3,6,0]]
[[4,2,8][7,1,5][0,3,6]]
[[7,5,0][3,4,1][6,8,2]]
[[0,7,5][3,4,1][6,8,2]]
[[7,4,0][3,1,5][6,8,2]]
[[7,4,5][3,1,2][6,8,0]]
[[0,4,5][7,3,1][6,8,2]]
[[7,4,5][6,3,1][0,8,2]]
[[4,5,2][7,0,6][8,1,3]]
[[4,1,5][7,0,6][8,2,3]]
[[8,2,4][5,0,3][1,7,6]]
[[5,2,7][3,0,8][1,6,4]]
[[5,2,7][3,8,4][1,6,0]]
[[3,5,0][1,7,2][6,8,4]]
[[0,3,5][1,7,2][6,8,4]]
[[3,7,0][1,2,5][6,8,4]]
[[3,7,5][1,2,4][6,8,0]]
[[3,7,5][6,1,2][0,8,4]]
[[7,5,0][3,8,6][1,4,2]]
[[0,7,5][3,8,6][1,4,2]]
[[0,8,5][7,3,6][1,4,2]]
[[7,8,5][1,3,6][0,4,2]]
[[7,8,5][3,4,6][1,2,0]]
[[7,8,5][3,4,6][0,1,2]]
```

```
[[5,2,8][7,6,4][3,1,0]]
[[0,2,7][8,1,5][3,6,4]]
[[8,2,7][3,1,5][0,6,4]]
[[8,2,7][1,6,5][3,4,0]]
[[8,2,7][1,6,5][0,3,4]]
[[8,5,0][1,7,6][3,4,2]]
[[0,8,5][1,7,6][3,4,2]]
[[8,7,5][3,1,6][0,4,2]]
[[8,7,5][1,4,6][3,2,0]]
[[8,7,5][1,4,6][0,3,2]]
[[0,5,2][7,1,4][6,8,3]]
[[7,5,2][1,0,4][6,8,3]]
[[7,5,0][4,2,1][8,3,6]]
[[7,5,1][4,3,2][8,6,0]]
[[5,4,1][7,0,6][8,2,3]]
[[5,1,2][8,0,6][3,4,7]]
[[5,1,2][8,4,6][0,3,7]]
[[0,3,5][7,6,2][1,8,4]]
[[7,3,5][6,0,2][1,8,4]]
[[5,2,4][6,1,0][7,3,8]]
[[5,2,4][6,3,1][7,0,8]]
[[8,0,1][4,5,7][3,6,2]]
[[8,1,7][4,5,2][3,0,6]]
[[8,7,2][0,5,6][4,1,3]]
[[5,2,1][6,8,0][7,3,4]]
[[5,2,1][6,3,8][7,0,4]]
[[5,2,1][8,4,0][7,3,6]]
[[5,2,1][8,3,4][7,0,6]]
[[1,2,4][3,0,7][5,8,6]]
[[1,2,4][3,0,7][5,8,6]]
[[1,0,5][6,8,2][7,3,4]]
[[1,8,5][6,2,0][7,3,4]]
[[1,8,5][6,3,2][7,0,4]]
[[1,4,3][5,2,0][7,8,6]]
[[0,2,1][7,5,4][6,8,3]]
[[1,5,2][4,0,6][8,7,3]]
[[1,2,7][4,3,5][8,6,0]]
[[8,2,1][3,5,7][6,0,4]]
[[4,0,8][5,2,6][7,3,1]]
[[5,0,8][2,4,6][7,3,1]]
[[5,4,8][2,3,6][7,0,1]]
[[4,0,5][2,8,6][7,3,1]]
[[4,8,5][2,3,6][7,0,1]]
[[4,0,8][5,2,6][7,3,1]]
[[5,0,8][2,4,6][7,3,1]]
[[5,4,8][2,3,6][7,0,1]]
[[1,5,2][7,3,0][6,8,4]]
[[1,3,5][7,2,0][6,8,4]]
[[1,3,5][0,7,2][6,8,4]]
[[1,8,5][0,7,6][3,4,2]]
[[1,8,5][7,4,6][3,0,2]]
[[6,7,2][0,5,3][1,8,4]]
```

```
[[1,5,2][8,0,6][7,4,3]]
[[7,8,2][4,5,6][0,3,1]]
[[1,0,7][2,5,4][8,3,6]]
[[7,3,2][4,0,6][5,8,1]]
[[1,2,4][8,0,6][3,7,5]]
[[1,2,4][8,7,6][0,3,5]]
[[1,7,2][6,5,8][3,0,4]]
[[0,2,4][5,3,6][1,8,7]]
[[5,2,4][1,3,6][0,8,7]]
[[5,7,2][4,0,6][3,8,1]]
[[0,2,4][5,3,6][1,8,7]]
[[5,2,4][1,3,6][0,8,7]]
[[7,2,8][3,5,6][0,4,1]]
[[4,2,8][7,5,6][0,3,1]]
[[7,2,1][6,5,3][4,8,0]]
[[0,5,2][4,3,6][7,1,8]]
[[4,0,2][5,6,1][7,8,3]]
[[5,0,2][6,4,1][7,8,3]]
[[5,4,2][6,1,0][7,8,3]]
[[4,0,5][3,1,2][7,8,6]]
[[4,1,5][3,2,0][7,8,6]]
[[8,2,7][1,5,4][3,0,6]]
[[6,0,2][5,3,1][7,8,4]]
[[5,0,2][3,6,1][7,8,4]]
[[5,6,2][3,1,0][7,8,4]]
[[7,1,2][4,5,0][8,3,6]]
[[4,0,1][5,3,2][7,8,6]]
[[5,4,1][3,2,0][7,8,6]]
[[5,2,3][0,7,1][8,6,4]]
[[5,2,3][7,6,1][8,0,4]]
[[5,2,3][7,1,4][8,0,6]]
[[5,0,2][6,1,3][7,8,4]]
[[5,1,2][6,3,0][7,8,4]]
[[5,2,3][0,7,1][8,6,4]]
[[5,2,3][7,6,1][8,0,4]]
[[5,2,3][7,1,4][8,0,6]]
[[1,5,0][4,2,8][7,3,6]]
[[1,5,8][4,3,2][7,6,0]]
[[1,2,8][7,5,4][3,6,0]]
[[8,5,0][4,2,6][7,3,1]]
[[8,2,7][3,5,6][0,1,4]]
[[1,8,2][4,5,0][7,3,6]]
[[1,5,2][4,3,0][7,8,6]]
[[1,3,5][4,2,0][7,8,6]]
[[7,2,6][3,4,0][1,8,5]]
[[7,2,6][0,4,5][1,8,3]]
[[0,7,2][3,5,1][4,6,8]]
[[2,8,6][7,5,1][3,4,0]]
[[2,8,0][7,5,1][3,6,4]]
[[2,8,1][7,5,4][3,6,0]]
[[2,1,0][7,5,4][8,3,6]]
[[7,0,2][4,8,6][3,5,1]]
```

```
[[7,2,6][0,3,1][5,8,4]]
[[7,2,1][5,4,6][8,0,3]]
[[7,2,1][0,3,4][5,8,6]]
[[4,8,0][2,5,7][3,1,6]]
[[7,6,0][8,5,4][3,2,1]]
[[0,7,6][8,5,4][3,2,1]]
[[0,7,4][2,5,1][8,3,6]]
[[2,7,4][8,5,1][0,3,6]]
[[1,2,5][8,7,0][3,6,4]]
[[7,2,8][3,4,6][1,0,5]]
[[0,7,2][3,5,4][6,1,8]]
[[3,2,1][5,7,0][6,8,4]]
[[7,2,4][1,3,0][5,8,6]]
[[5,0,2][4,8,6][1,7,3]]
[[5,8,2][4,7,6][1,0,3]]
[[0,3,4][2,5,1][7,8,6]]
[[1,5,2][7,4,0][3,8,6]]
[[1,5,2][0,7,4][3,8,6]]
[[0,2,6][8,5,4][7,3,1]]
[[0,2,4][3,5,6][1,7,8]]
[[3,2,4][1,5,6][0,7,8]]
[[0,7,2][4,5,1][3,8,6]]
[[1,7,2][0,6,3][5,8,4]]
[[3,2,4][1,5,0][7,8,6]]
[[1,3,2][7,0,4][8,5,6]]
[[1,3,2][8,7,4][0,5,6]]
[[7,2,4][0,6,3][1,8,5]]
[[7,2,5][0,8,6][4,3,1]]
[[7,2,5][8,3,6][4,0,1]]
[[2,4,8][5,1,6][7,0,3]]
[[2,1,4][5,8,6][7,0,3]]
[[5,4,8][1,2,6][7,0,3]]
[[3,0,2][4,7,6][5,1,8]]
[[3,7,2][4,1,6][5,0,8]]
[[5,2,1][7,6,0][4,8,3]]
[[8,7,6][2,5,1][3,4,0]]
[[0,6,7][8,5,2][3,4,1]]
[[8,6,7][3,5,2][0,4,1]]
[[8,7,0][2,5,1][3,6,4]]
[[8,7,1][2,5,4][3,6,0]]
[[7,2,6][3,1,0][5,8,4]]
[[7,2,6][0,3,1][5,8,4]]
[[0,4,8][2,5,7][3,1,6]]
[[2,4,8][3,5,7][0,1,6]]
[[0,5,3][7,8,2][1,6,4]]
[[5,8,3][7,0,2][1,6,4]]
[[3,8,2][4,7,6][5,0,1]]
[[7,2,1][3,4,0][5,8,6]]
[[7,2,1][0,3,4][5,8,6]]
[[1,8,5][7,0,2][4,3,6]]
[[7,6,0][8,5,4][3,2,1]]
[[7,6,4][8,5,1][3,2,0]]
```

```
[[7,4,0][2,5,1][8,3,6]]
[[0,7,4][2,5,1][8,3,6]]
[[1,7,5][6,0,2][8,4,3]]
[[1,7,5][8,6,2][0,4,3]]
[[8,4,0][2,5,6][7,3,1]]
[[7,2,8][0,3,6][1,4,5]]
[[7,2,8][3,4,6][1,0,5]]
[[0,1,7][8,5,2][3,6,4]]
[[8,1,7][3,5,2][0,6,4]]
[[7,3,5][4,2,6][8,0,1]]
[[7,4,0][3,5,8][1,2,6]]
[[0,7,4][3,5,8][1,2,6]]
[[5,0,7][4,3,2][1,8,6]]
[[5,3,7][4,2,0][1,8,6]]
[[7,2,4][0,6,3][1,8,5]]
[[1,4,7][5,2,6][8,0,3]]
[[1,4,7][0,3,2][5,8,6]]
[[1,7,2][0,6,3][5,8,4]]
[[0,8,2][3,5,7][1,4,6]]
[[8,4,0][3,5,7][1,6,2]]
[[8,4,7][3,5,2][1,6,0]]
[[8,7,0][3,5,4][1,2,6]]
[[4,5,2][1,0,8][7,3,6]]
[[7,8,0][3,5,4][1,6,2]]
[[7,8,4][3,5,2][1,6,0]]
[[8,7,0][1,5,4][3,6,2]]
[[8,7,4][1,5,2][3,6,0]]
[[1,4,0][7,8,5][3,6,2]]
[[1,8,4][7,0,5][3,6,2]]
[[0,7,1][8,5,4][3,6,2]]
[[0,4,2][7,5,1][8,3,6]]
[[7,8,0][3,5,2][1,4,6]]
[[0,7,8][3,5,2][1,4,6]]
[[0,4,7][8,5,2][3,1,6]]
[[8,4,7][3,5,2][0,1,6]]
[[0,3,2][8,5,4][1,7,6]]
[[3,5,2][1,8,4][7,6,0]]
[[0,3,2][8,5,4][1,7,6]]
[[8,3,2][1,5,4][0,7,6]]
[[7,8,0][1,5,2][3,6,4]]
[[0,7,8][1,5,2][3,6,4]]
[[1,8,0][5,7,2][3,6,4]]
[[1,7,8][5,0,2][3,6,4]]
[[0,1,8][5,6,2][7,3,4]]
[[5,1,8][6,0,2][7,3,4]]
[[0,5,3][7,8,2][1,6,4]]
[[5,8,3][7,0,2][1,6,4]]
[[0,3,2][5,6,8][7,1,4]]
[[5,3,2][6,0,8][7,1,4]]
[[0,7,2][1,5,3][6,4,8]]
[[0,8,2][1,5,7][3,6,4]]
[[1,8,7][2,0,5][3,6,4]]
```

```
[[1,8,7][3,2,5][0,6,4]]
[[8,7,0][2,5,1][3,6,4]]
[[8,7,1][2,5,4][3,6,0]]
[[1,5,0][7,8,4][3,2,6]]
[[1,8,5][7,0,4][3,2,6]]
[[1,5,0][7,2,4][8,3,6]]
[[7,6,0][8,5,1][3,4,2]]
[[7,6,1][8,5,2][3,4,0]]
[[0,7,2][6,5,4][8,1,3]]
[[0,7,2][6,5,3][8,4,1]]
[[1,8,2][5,0,4][3,7,6]]
[[0,7,2][8,5,3][6,1,4]]
[[5,2,4][3,6,0][1,8,7]]
[[5,2,4][3,7,0][6,8,1]]
[[2,0,5][4,7,6][8,3,1]]
[[2,7,5][4,3,6][8,0,1]]
[[5,2,4][8,1,6][3,0,7]]
[[5,4,8][1,2,6][7,0,3]]
[[5,2,1][0,7,6][3,4,8]]
[[5,2,1][7,4,6][3,0,8]]
[[1,5,2][7,4,0][3,8,6]]
[[1,5,2][0,7,4][3,8,6]]
[[1,2,8][0,7,5][3,6,4]]
[[1,2,8][7,6,5][3,0,4]]
[[1,8,5][0,7,6][3,4,2]]
[[1,8,5][7,4,6][3,0,2]]
[[1,7,5][8,2,6][3,0,4]]
[[0,3,2][4,5,7][1,8,6]]
[[1,5,2][8,0,6][7,4,3]]
[[7,2,5][4,8,0][3,1,6]]
[[7,2,5][4,1,8][3,0,6]]
[[5,0,2][4,8,6][3,1,7]]
[[5,8,2][4,1,6][3,0,7]]
[[7,0,5][3,1,6][4,8,2]]
[[7,1,5][0,3,6][4,8,2]]
[[7,0,5][4,1,6][8,3,2]]
[[7,1,5][4,3,6][8,0,2]]
[[1,7,4][0,3,5][2,8,6]]
[[3,7,2][4,5,8][1,0,6]]
[[3,2,4][5,8,0][7,1,6]]
[[5,3,2][8,4,6][7,0,1]]
[[1,2,4][8,5,7][3,6,0]]
[[7,4,8][2,5,6][3,0,1]]
[[4,8,5][1,2,6][7,0,3]]
[[5,4,8][1,2,6][7,0,3]]
[[8,2,1][5,6,0][7,3,4]]
[[5,2,1][6,8,0][7,3,4]]
[[1,5,2][0,7,6][8,3,4]]
[[1,5,2][7,3,6][8,0,4]]
[[8,2,1][5,6,0][7,3,4]]
[[5,2,1][6,8,0][7,3,4]]
[[1,7,5][0,6,2][3,8,4]]
```

```
[[0,1,2][8,5,6][7,4,3]]
[[7,8,0][4,5,6][3,2,1]]
[[0,7,8][4,5,6][3,2,1]]
[[3,2,4][1,7,6][8,0,5]]
[[3,7,2][0,4,6][1,8,5]]
[[1,4,0][2,5,8][7,3,6]]
[[1,4,0][2,5,8][7,3,6]]
[[1,4,0][2,5,6][7,8,3]]
[[1,4,0][2,5,6][7,8,3]]
[[5,2,8][4,7,0][3,1,6]]
[[8,2,4][5,3,6][1,0,7]]
[[5,2,8][0,7,6][3,1,4]]
[[5,2,8][7,1,6][3,0,4]]
[[7,5,1][4,2,6][8,0,3]]
[[5,2,4][8,1,6][3,0,7]]
[[1,6,2][5,0,3][7,8,4]]
[[1,5,8][4,2,6][7,0,3]]
[[8,2,5][4,3,6][7,0,1]]
[[1,7,4][0,5,6][2,8,3]]
[[7,2,1][3,5,0][4,6,8]]
[[2,0,8][7,5,6][3,4,1]]
[[2,1,4][7,5,6][8,0,3]]
[[4,8,7][2,5,6][3,0,1]]
[[7,2,4][3,5,0][6,1,8]]
[[7,2,1][4,5,0][3,8,6]]
[[1,2,3][5,0,7][8,6,4]]
[[1,2,3][5,7,4][8,6,0]]
[[0,2,4][5,6,3][7,8,1]]
[[5,2,4][6,0,3][7,8,1]]
[[8,0,7][2,5,6][3,4,1]]
[[1,8,5][4,7,2][3,0,6]]
[[1,2,3][5,0,7][8,6,4]]
[[1,2,3][5,7,4][8,6,0]]
[[8,7,4][3,5,6][1,0,2]]
[[5,0,2][4,1,8][7,3,6]]
[[4,2,1][7,5,0][8,3,6]]
[[3,2,4][8,5,0][1,7,6]]
[[1,2,5][7,4,0][8,3,6]]
[[1,2,5][0,7,4][8,3,6]]
[[1,2,5][7,3,4][8,0,6]]
[[7,2,4][6,5,0][8,1,3]]
[[1,2,4][5,8,0][3,7,6]]
[[0,2,4][5,6,3][7,8,1]]
[[5,2,4][6,0,3][7,8,1]]
[[5,2,3][1,0,8][7,6,4]]
[[5,2,3][1,8,4][7,6,0]]
[[0,2,1][5,6,4][7,8,3]]
[[5,2,1][6,0,4][7,8,3]]
[[5,2,3][7,6,4][1,8,0]]
[[1,6,5][3,0,2][7,8,4]]
[[1,7,4][0,5,6][2,8,3]]
[[0,4,1][5,2,6][7,8,3]]
```

```
[[5,4,1][2,0,6][7,8,3]]
[[1,7,2][4,5,6][3,0,8]]
[[4,1,5][2,0,6][7,8,3]]
[[0,4,1][5,2,6][7,8,3]]
[[5,4,1][2,0,6][7,8,3]]
[[1,2,4][7,5,0][3,8,6]]
[[7,2,3][1,5,8][6,4,0]]
[[7,2,3][6,5,1][8,4,0]]
[[7,2,3][8,5,4][6,1,0]]
[[1,2,4][7,5,0][3,8,6]]
[[5,2,3][0,7,6][1,8,4]]
[[1,2,3][5,6,4][7,8,0]]
[[1,5,0][4,2,6][7,8,3]]
[[8,2,0][3,7,5][4,1,6]]
[[8,7,2][4,3,5][0,1,6]]
[[4,2,0][5,7,6][1,8,3]]
[[7,2,0][5,1,6][4,8,3]]
[[3,2,0][4,7,6][8,5,1]]
[[7,2,6][4,1,5][3,8,0]]
[[1,7,3][0,2,5][8,6,4]]
[[7,2,0][1,8,4][3,5,6]]
[[2,4,6][0,5,7][3,8,1]]
[[2,4,6][0,5,8][7,3,1]]
[[7,0,2][4,5,3][1,6,8]]
[[7,0,2][4,5,8][1,3,6]]
[[3,2,0][1,7,5][8,6,4]]
[[3,7,2][1,6,5][0,8,4]]
[[2,1,4][7,5,6][8,0,3]]
[[5,1,7][4,0,2][8,3,6]]
[[5,0,3][7,6,2][4,8,1]]
[[5,3,2][0,8,6][7,4,1]]
[[7,0,4][3,5,6][8,2,1]]
[[8,2,0][3,7,5][6,4,1]]
[[3,2,0][1,7,8][6,5,4]]
[[5,0,3][7,6,2][4,8,1]]
[[5,3,2][0,8,6][7,4,1]]
[[2,4,3][5,7,0][1,8,6]]
[[2,7,4][0,5,3][1,8,6]]
[[8,0,6][4,5,7][3,2,1]]
[[2,7,4][0,5,6][8,1,3]]
[[5,4,2][0,8,6][7,1,3]]
[[8,2,0][3,7,4][1,5,6]]
[[8,7,2][3,4,6][1,5,0]]
[[6,2,0][5,7,1][8,3,4]]
[[6,7,2][5,3,1][0,8,4]]
[[8,5,2][3,4,6][7,0,1]]
[[8,0,2][7,5,6][4,3,1]]
[[8,2,7][1,5,0][4,3,6]]
[[1,2,0][8,7,6][4,5,3]]
[[1,7,2][4,8,6][0,5,3]]
[[1,4,3][5,2,0][7,8,6]]
[[7,2,3][1,4,6][8,5,0]]
```

```
[[4,0,2][1,5,6][7,8,3]]
[[5,4,3][0,8,2][7,1,6]]
[[7,2,0][1,4,6][5,8,3]]
[[7,2,1][4,6,5][0,8,3]]
[[4,2,6][0,5,7][8,3,1]]
[[7,1,2][8,5,6][3,0,4]]
[[8,2,6][3,5,7][4,0,1]]
[[7,0,2][1,5,3][4,8,6]]
[[7,0,2][1,5,3][4,8,6]]
[[4,2,6][0,5,7][8,3,1]]
[[1,3,2][0,5,6][7,4,8]]
[[4,2,6][0,5,3][7,8,1]]
[[4,2,0][1,5,6][7,8,3]]
[[4,7,2][5,6,1][0,8,3]]
[[7,1,4][8,2,6][3,5,0]]
[[5,2,0][7,4,3][8,1,6]]
[[7,5,2][4,3,1][0,6,8]]
[[2,4,5][7,1,6][8,3,0]]
[[2,1,4][7,3,5][0,8,6]]
[[4,7,5][6,3,2][0,8,1]]
[[5,2,0][7,4,1][8,6,3]]
[[5,2,0][7,4,3][8,1,6]]
[[5,4,2][7,1,3][0,8,6]]
[[5,4,8][3,2,6][1,7,0]]
[[5,1,2][7,6,4][3,8,0]]
[[3,7,5][1,2,6][8,4,0]]
[[5,2,0][1,3,4][8,7,6]]
[[5,3,2][1,4,6][8,7,0]]
[[5,2,0][8,4,7][3,1,6]]
[[7,4,5][2,6,1][0,8,3]]
[[2,4,1][5,7,6][8,3,0]]
[[2,7,4][5,1,6][8,3,0]]
[[2,7,4][5,3,1][0,8,6]]
[[8,4,7][5,2,6][3,1,0]]
[[5,2,0][4,8,3][7,1,6]]
[[4,7,2][3,5,6][1,8,0]]
[[2,4,1][5,3,6][7,8,0]]
[[2,3,4][5,1,6][7,8,0]]
[[5,4,1][3,2,6][7,8,0]]
[[5,2,6][4,7,3][0,8,1]]
[[5,2,6][4,7,3][0,8,1]]
[[5,2,0][3,1,6][7,4,8]]
[[1,7,5][3,2,6][4,8,0]]
[[7,2,0][3,1,4][8,5,6]]
[[7,0,2][6,5,4][3,8,1]]
[[7,2,6][4,1,3][0,8,5]]
[[7,2,0][8,3,1][6,5,4]]
[[7,0,4][2,5,3][1,8,6]]
[[8,6,7][4,5,0][3,2,1]]
[[7,0,4][2,5,6][8,1,3]]
[[2,4,8][0,5,1][7,3,6]]
[[8,2,6][0,5,1][3,7,4]]
```

```
[[7,0,2][4,5,8][3,6,1]]
[[7,2,3][1,0,6][8,4,5]]
[[7,2,0][3,8,4][5,1,6]]
[[3,2,0][8,7,4][5,1,6]]
[[3,7,2][8,4,6][5,1,0]]
[[7,6,5][3,4,2][1,8,0]]
[[7,8,5][3,2,6][4,1,0]]
[[7,8,5][4,3,2][0,1,6]]
[[5,2,0][7,3,8][4,1,6]]
[[5,6,4][7,3,2][0,8,1]]
[[5,2,0][7,4,1][8,6,3]]
[[0,2,8][5,4,7][3,1,6]]
[[0,2,7][5,8,4][3,1,6]]
[[3,8,2][7,5,6][4,0,1]]
[[7,3,2][8,5,6][4,0,1]]
[[4,8,5][3,2,6][1,7,0]]
[[0,8,5][4,3,2][1,7,6]]
[[7,1,5][8,2,6][4,3,0]]
[[7,1,5][4,8,2][0,3,6]]
[[8,5,2][1,7,6][4,3,0]]
[[7,5,4][2,1,6][8,3,0]]
[[7,5,4][2,3,1][0,8,6]]
[[7,6,5][1,4,2][0,8,3]]
[[1,4,7][8,5,2][3,0,6]]
[[5,2,4][1,7,6][3,8,0]]
[[5,2,0][4,8,1][7,6,3]]
[[7,2,6][4,1,3][0,8,5]]
[[1,3,7][0,5,2][8,6,4]]
[[7,2,0][8,6,1][5,3,4]]
[[8,2,0][6,7,1][5,3,4]]
[[7,5,4][3,8,6][1,2,0]]
[[1,3,7][0,5,2][8,6,4]]
[[5,4,2][0,1,6][7,3,8]]
[[8,2,7][6,0,5][3,4,1]]
[[8,7,5][4,0,2][6,3,1]]
[[8,7,5][4,3,2][0,6,1]]
[[8,7,5][3,0,6][4,1,2]]
[[3,8,5][7,2,6][1,4,0]]
[[7,5,2][8,3,6][1,4,0]]
[[7,3,5][8,2,6][1,4,0]]
[[3,8,7][4,0,5][1,6,2]]
[[8,4,5][2,7,6][3,1,0]]
[[4,8,5][3,2,6][1,7,0]]
[[0,8,5][4,3,2][1,7,6]]
[[7,1,4][3,0,5][6,8,2]]
[[7,1,4][8,0,6][3,2,5]]
[[7,4,5][6,3,1][0,8,2]]
[[0,5,2][4,7,1][8,3,6]]
[[4,5,2][7,3,1][0,8,6]]
[[4,2,1][7,0,5][8,3,6]]
[[7,4,5][1,6,3][0,8,2]]
[[7,5,8][3,2,6][1,4,0]]
```

```
[[4,8,2][5,7,6][3,1,0]]
[[4,7,8][5,2,6][3,1,0]]
[[5,4,8][3,2,6][1,7,0]]
[[5,8,7][4,0,2][3,1,6]]
[[8,4,7][5,2,6][3,1,0]]
[[7,2,0][8,1,4][5,3,6]]
[[8,2,0][1,7,4][5,3,6]]
[[8,7,2][1,4,6][5,3,0]]
[[3,5,2][8,4,6][1,7,0]]
[[3,5,8][4,0,2][1,7,6]]
[[5,4,8][3,2,6][1,7,0]]
[[8,3,2][5,4,6][1,7,0]]
[[8,2,0][5,3,7][1,6,4]]
[[5,1,8][7,0,6][3,4,2]]
[[5,2,0][3,8,1][6,7,4]]
[[3,2,7][8,0,5][1,6,4]]
[[3,7,5][8,0,6][1,4,2]]
[[7,8,5][3,4,6][1,2,0]]
[[7,5,2][1,0,4][6,8,3]]
[[5,2,0][7,1,8][6,3,4]]
[[7,5,2][1,4,3][6,8,0]]
[[7,6,5][3,4,2][1,8,0]]
[[8,7,5][1,4,6][3,2,0]]
[[8,2,7][3,0,5][6,1,4]]
[[7,5,4][8,1,6][3,2,0]]
[[7,1,5][3,0,4][2,8,6]]
[[7,1,5][2,4,6][8,3,0]]
[[7,1,5][2,3,4][0,8,6]]
[[7,1,5][6,2,4][0,8,3]]
[[5,2,0][3,8,1][6,7,4]]
[[5,2,0][7,3,8][6,4,1]]
[[5,6,2][7,1,4][0,8,3]]
[[6,2,0][5,7,1][8,3,4]]
[[7,5,2][6,4,3][0,8,1]]
[[5,2,0][8,1,7][3,6,4]]
[[5,3,1][7,6,2][0,8,4]]
[[7,4,5][1,6,3][0,8,2]]
[[7,3,5][1,2,4][0,8,6]]
[[7,3,5][1,0,6][8,4,2]]
[[4,0,2][7,5,3][1,8,6]]
[[4,0,3][7,2,5][1,8,6]]
[[8,0,2][4,5,1][3,6,7]]
[[8,0,1][4,5,7][3,6,2]]
[[8,4,1][0,5,2][7,3,6]]
[[8,1,2][0,5,3][7,6,4]]
[[1,5,8][0,3,2][7,6,4]]
[[1,5,2][0,8,3][7,6,4]]
[[4,2,0][5,7,6][1,8,3]]
[[4,0,2][7,5,3][1,8,6]]
[[4,0,3][7,2,5][1,8,6]]
[[8,2,4][0,5,1][3,6,7]]
[[5,0,3][7,1,2][6,8,4]]
```

```
[[3,5,2][1,4,6][7,8,0]]
[[3,5,1][4,0,2][7,8,6]]
[[5,4,1][3,2,6][7,8,0]]
[[1,5,2][0,6,8][7,3,4]]
[[1,8,5][0,2,4][7,3,6]]
[[8,2,0][5,1,6][7,4,3]]
[[1,5,2][4,3,7][0,8,6]]
[[1,7,5][4,6,3][0,8,2]]
[[8,2,1][0,5,4][3,7,6]]
[[7,0,8][4,5,1][3,6,2]]
[[5,2,8][0,6,3][7,1,4]]
[[5,2,8][0,3,4][7,1,6]]
[[1,0,5][7,4,6][8,3,2]]
[[1,7,4][8,5,0][3,2,6]]
[[4,2,0][3,7,6][5,8,1]]
[[3,8,2][0,5,4][7,1,6]]
[[5,0,3][8,4,2][7,1,6]]
[[7,2,1][4,0,6][8,3,5]]
[[1,2,0][8,7,6][3,4,5]]
[[1,7,2][4,0,6][8,3,5]]
[[7,2,1][3,0,6][4,8,5]]
[[7,2,1][4,0,6][8,3,5]]
[[1,4,5][0,8,2][7,3,6]]
[[4,1,8][0,5,2][7,3,6]]
[[8,6,2][0,5,1][7,3,4]]
[[8,6,2][0,5,1][7,3,4]]
[[3,7,5][4,0,6][2,8,1]]
[[8,2,0][5,1,6][7,4,3]]
[[4,2,5][7,0,6][1,8,3]]
[[4,2,5][7,0,6][1,8,3]]
[[8,5,2][4,1,6][7,3,0]]
[[8,1,5][4,2,6][7,3,0]]
[[5,2,4][6,3,1][7,8,0]]
[[8,2,1][3,5,7][6,0,4]]
[[3,2,8][0,5,7][1,6,4]]
[[1,5,4][2,8,6][7,3,0]]
[[6,7,2][4,5,1][0,8,3]]
[[3,2,0][5,4,6][7,1,8]]
[[7,0,2][4,5,8][1,3,6]]
[[2,4,8][0,5,6][3,7,1]]
[[5,2,0][8,1,6][7,3,4]]
[[8,0,2][3,5,6][1,7,4]]
[[4,2,8][0,1,5][7,3,6]]
[[4,0,2][7,5,6][8,1,3]]
[[8,2,4][0,5,3][1,7,6]]
[[1,3,5][0,7,2][6,8,4]]
[[1,8,5][0,7,6][3,4,2]]
[[7,0,2][1,5,4][6,8,3]]
[[5,2,4][6,3,1][7,8,0]]
[[8,7,2][4,5,6][0,1,3]]
[[5,2,1][8,4,6][7,3,0]]
[[1,4,3][5,2,6][7,8,0]]
```

```
[[1,0,2][4,5,6][8,7,3]]
[[4,2,8][5,0,6][7,3,1]]
[[4,2,8][5,0,6][7,3,1]]
[[1,0,2][8,5,6][7,4,3]]
[[4,2,8][0,5,6][7,3,1]]
[[4,2,0][5,6,1][7,8,3]]
[[5,2,0][6,4,1][7,8,3]]
[[4,1,5][3,2,6][7,8,0]]
[[6,2,0][5,3,1][7,8,4]]
[[5,2,0][3,6,1][7,8,4]]
[[7,1,2][4,5,6][8,3,0]]
[[5,4,1][3,2,6][7,8,0]]
[[5,2,3][7,6,1][0,8,4]]
[[5,2,3][7,1,4][0,8,6]]
[[5,2,0][6,1,3][7,8,4]]
[[5,2,3][7,6,1][0,8,4]]
[[5,2,3][7,1,4][0,8,6]]
[[1,8,2][4,5,6][7,3,0]]
[[1,5,2][4,3,6][7,8,0]]
[[1,3,5][4,2,6][7,8,0]]
[[7,2,0][3,4,6][1,8,5]]
[[7,2,0][4,8,6][3,5,1]]
[[7,2,1][5,4,6][0,8,3]]
[[5,2,0][4,8,6][1,7,3]]
[[1,5,2][7,4,6][3,8,0]]
[[3,2,4][1,5,6][7,0,8]]
[[3,2,4][1,5,6][7,8,0]]
[[7,2,5][4,8,6][0,3,1]]
[[3,2,0][4,7,6][5,1,8]]
[[3,7,2][4,1,6][5,8,0]]
[[5,2,1][7,0,6][4,8,3]]
[[7,2,0][3,1,6][5,8,4]]
[[7,2,1][3,4,6][5,8,0]]
[[7,3,5][4,2,6][0,8,1]]
[[5,3,7][4,2,6][1,8,0]]
[[1,4,7][5,2,6][0,8,3]]
[[4,0,2][1,5,8][7,3,6]]
[[1,8,4][7,5,0][3,6,2]]
[[8,3,2][1,5,4][7,0,6]]
[[1,7,8][0,5,2][3,6,4]]
[[1,7,8][0,5,2][3,6,4]]
[[1,0,8][5,6,2][7,3,4]]
[[1,7,2][0,5,3][6,4,8]]
[[1,8,2][0,5,7][3,6,4]]
[[1,8,7][2,5,0][3,6,4]]
[[1,8,2][0,5,4][3,7,6]]
[[2,7,5][4,3,6][0,8,1]]
[[1,5,2][7,4,6][3,8,0]]
[[1,0,2][8,5,6][7,4,3]]
[[7,2,5][4,8,6][3,1,0]]
[[5,2,0][4,8,6][3,1,7]]
[[7,1,5][4,3,6][0,8,2]]
```

```
[[7,1,5][4,3,6][0,8,2]]
[[3,2,4][5,8,6][7,1,0]]
[[8,2,1][5,0,6][7,3,4]]
[[1,5,2][7,3,6][0,8,4]]
[[8,2,1][5,0,6][7,3,4]]
[[1,0,2][8,5,6][7,4,3]]
[[3,2,4][1,7,6][0,8,5]]
[[3,7,2][4,0,6][1,8,5]]
[[5,2,8][4,7,6][3,1,0]]
[[7,5,1][4,2,6][0,8,3]]
[[1,6,2][0,5,3][7,8,4]]
[[0,2,8][7,5,6][3,4,1]]
[[7,2,1][4,5,6][3,8,0]]
[[1,2,3][0,5,7][8,6,4]]
[[1,2,3][0,5,7][8,6,4]]
[[5,2,0][4,1,8][7,3,6]]
[[4,2,1][7,5,6][8,3,0]]
[[3,2,4][8,5,6][1,7,0]]
[[1,2,5][7,4,6][8,3,0]]
[[1,2,5][7,3,4][0,8,6]]
[[1,2,4][5,8,6][3,7,0]]
[[1,7,2][4,5,6][3,8,0]]
[[1,2,4][7,5,6][3,8,0]]
[[1,2,4][7,5,6][3,8,0]]
[[7,2,0][4,5,3][1,6,8]]
[[7,2,0][4,5,8][1,3,6]]
[[2,4,3][5,7,6][1,8,0]]
[[8,2,0][7,5,6][4,3,1]]
[[8,2,7][1,5,6][4,3,0]]
[[1,4,3][5,2,6][7,8,0]]
[[4,2,0][1,5,6][7,8,3]]
[[0,2,6][4,5,7][8,3,1]]
[[7,2,0][1,5,3][4,8,6]]
[[7,2,0][1,5,3][4,8,6]]
[[0,2,6][4,5,7][8,3,1]]
[[0,2,6][4,5,3][7,8,1]]
[[5,2,3][7,4,0][8,1,6]]
[[2,1,4][0,3,5][7,8,6]]
[[5,2,3][7,4,0][8,1,6]]
[[5,4,2][0,1,3][7,8,6]]
[[5,2,3][4,8,0][7,1,6]]
[[7,2,0][6,5,4][3,8,1]]
[[7,2,0][4,5,8][3,6,1]]
[[5,6,4][0,3,2][7,8,1]]
[[8,2,7][6,5,0][3,4,1]]
[[3,8,7][4,5,0][1,6,2]]
[[7,1,4][3,5,0][6,8,2]]
[[4,5,2][0,3,1][7,8,6]]
[[3,0,8][4,5,2][1,7,6]]
[[3,2,7][8,5,0][1,6,4]]
[[7,0,2][1,5,4][6,8,3]]
[[8,2,7][3,5,0][6,1,4]]
```

```
[[5,6,2][0,1,4][7,8,3]]
[[5,3,1][0,6,2][7,8,4]]
[[4,2,0][7,5,3][1,8,6]]
[[4,2,3][7,0,5][1,8,6]]
[[8,2,0][4,5,1][3,6,7]]
[[4,2,0][7,5,3][1,8,6]]
[[4,2,3][7,0,5][1,8,6]]
[[3,0,1][4,5,2][7,8,6]]
[[1,7,4][8,5,6][3,2,0]]
[[7,2,0][4,5,8][1,3,6]]
[[8,2,0][3,5,6][1,7,4]]
[[0,2,8][4,1,5][7,3,6]]
[[4,2,0][7,5,6][8,1,3]]
[[7,2,0][1,5,4][6,8,3]]
[[1,2,0][4,5,6][8,7,3]]
[[4,2,8][0,5,6][7,3,1]]
[[4,2,8][0,5,6][7,3,1]]
[[1,2,0][8,5,6][7,4,3]]
[[0,2,8][4,5,6][7,3,1]]
[[5,2,3][0,6,1][7,8,4]]
[[5,2,3][0,1,4][7,8,6]]
[[5,2,3][6,1,0][7,8,4]]
[[5,2,3][0,6,1][7,8,4]]
[[5,2,3][0,1,4][7,8,6]]
[[3,2,4][1,5,6][7,8,0]]
[[4,2,0][1,5,8][7,3,6]]
[[1,2,0][8,5,6][7,4,3]]
[[8,2,1][0,5,6][7,3,4]]
[[1,5,2][0,3,6][7,8,4]]
[[8,2,1][0,5,6][7,3,4]]
[[1,2,0][8,5,6][7,4,3]]
[[1,2,5][0,3,4][7,8,6]]
[[7,2,3][4,5,0][1,6,8]]
[[7,2,3][1,5,0][4,8,6]]
[[7,2,3][1,5,0][4,8,6]]
[[5,2,3][7,4,6][8,1,0]]
[[5,2,3][7,4,6][8,1,0]]
[[5,2,3][4,8,6][7,1,0]]
[[0,5,2][4,3,1][7,8,6]]
[[7,2,0][1,5,4][6,8,3]]
[[4,2,3][7,5,0][1,8,6]]
[[4,2,3][7,5,0][1,8,6]]
[[4,2,3][7,5,0][1,8,6]]
[[4,2,3][7,5,0][1,8,6]]
[[0,2,8][4,5,6][7,3,1]]
[[0,2,8][4,5,6][7,3,1]]
[[7,2,3][1,5,6][4,8,0]]
[[7,2,3][1,5,6][4,8,0]]
[[4,2,3][7,5,6][1,8,0]]
[[4,2,3][7,5,6][1,8,0]]
[[4,2,3][7,5,6][1,8,0]]
[[4,2,3][7,5,6][1,8,0]]
```

```
[[2,4,6][7,3,0][5,8,1]]
[[2,3,4][7,6,0][5,8,1]]
[[2,3,4][7,8,6][5,0,1]]
[[7,4,6][3,2,0][5,8,1]]
[[7,0,2][3,6,4][5,8,1]]
[[7,2,4][3,6,1][5,0,8]]
[[7,2,4][3,8,0][5,1,6]]
[[2,0,4][7,8,6][3,5,1]]
[[2,0,4][7,6,1][5,8,3]]
[[7,0,4][6,2,1][5,8,3]]
[[7,2,4][6,8,1][5,0,3]]
[[2,0,4][7,5,3][8,1,6]]
[[2,5,4][7,0,3][8,1,6]]
[[2,5,4][7,3,0][8,1,6]]
[[2,5,4][0,7,3][8,1,6]]
[[2,5,4][7,1,3][8,0,6]]
[[2,5,4][7,1,3][0,8,6]]
[[2,5,4][0,1,3][7,8,6]]
[[2,5,0][7,3,4][8,1,6]]
[[0,5,4][2,7,3][8,1,6]]
[[2,5,4][8,7,3][0,1,6]]
[[2,5,4][7,1,3][8,6,0]]
[[0,5,4][2,1,3][7,8,6]]
[[2,5,4][1,0,3][7,8,6]]
[[2,0,4][1,5,3][7,8,6]]
[[2,0,5][7,3,4][8,1,6]]
[[5,0,4][2,7,3][8,1,6]]
[[2,5,4][8,7,3][1,0,6]]
[[2,5,4][7,1,0][8,6,3]]
[[5,0,4][2,1,3][7,8,6]]
[[2,5,4][1,3,0][7,8,6]]
[[2,4,0][1,5,3][7,8,6]]
[[0,2,5][7,3,4][8,1,6]]
[[2,5,4][1,3,6][7,8,0]]
[[2,4,3][1,5,0][7,8,6]]
[[2,4,3][1,5,6][7,8,0]]
[[2,5,4][1,8,3][7,0,6]]
[[2,3,5][7,0,4][8,1,6]]
[[5,4,0][2,7,3][8,1,6]]
[[5,7,4][2,0,3][8,1,6]]
[[2,5,4][8,0,3][1,7,6]]
[[2,5,4][8,7,3][1,6,0]]
[[2,5,0][7,1,4][8,6,3]]
[[2,5,4][7,0,1][8,6,3]]
[[5,4,0][2,1,3][7,8,6]]
[[5,1,4][2,0,3][7,8,6]]
[[2,5,0][1,3,4][7,8,6]]
[[7,2,5][0,3,4][8,1,6]]
[[5,4,3][2,7,0][8,1,6]]
[[2,0,4][8,5,3][1,7,6]]
[[2,0,4][7,5,1][8,6,3]]
[[5,4,3][2,1,0][7,8,6]]
```

```
[[5,4,3][2,7,6][8,1,0]]
[[0,2,4][8,5,3][1,7,6]]
[[5,4,3][2,1,6][7,8,0]]
[[2,5,4][1,3,6][7,0,8]]
[[2,4,3][1,0,5][7,8,6]]
[[2,4,3][1,5,6][7,0,8]]
[[2,5,4][1,8,3][7,6,0]]
[[2,3,5][7,4,0][8,1,6]]
[[2,3,5][0,7,4][8,1,6]]
[[2,3,5][7,1,4][8,0,6]]
[[5,7,4][2,3,0][8,1,6]]
[[5,7,4][0,2,3][8,1,6]]
[[5,7,4][2,1,3][8,0,6]]
[[2,5,4][8,3,0][1,7,6]]
[[2,5,4][0,8,3][1,7,6]]
[[2,5,4][8,7,0][1,6,3]]
[[2,0,5][7,1,4][8,6,3]]
[[2,5,4][0,7,1][8,6,3]]
[[2,5,4][7,6,1][8,0,3]]
[[5,1,4][2,3,0][7,8,6]]
[[5,1,4][0,2,3][7,8,6]]
[[2,0,5][1,3,4][7,8,6]]
[[7,2,5][3,0,4][8,1,6]]
[[7,2,5][8,3,4][0,1,6]]
[[5,4,3][2,0,7][8,1,6]]
[[2,4,0][8,5,3][1,7,6]]
[[2,4,0][7,5,1][8,6,3]]
[[5,4,3][2,0,1][7,8,6]]
[[5,4,3][2,7,6][8,0,1]]
[[2,3,5][7,4,6][8,1,0]]
[[2,3,5][7,1,4][0,8,6]]
[[5,7,4][2,1,3][0,8,6]]
[[2,5,4][8,3,6][1,7,0]]
[[0,2,5][7,1,4][8,6,3]]
[[2,5,4][7,6,1][0,8,3]]
[[5,1,4][2,3,6][7,8,0]]
[[0,2,5][1,3,4][7,8,6]]
[[2,4,3][8,5,0][1,7,6]]
[[5,4,3][2,7,6][0,8,1]]
[[2,3,5][0,1,4][7,8,6]]
[[2,5,4][0,6,1][7,8,3]]
[[2,4,3][8,5,6][1,7,0]]
[[2,5,4][1,8,3][0,7,6]]
[[5,1,4][2,8,3][7,0,6]]
[[5,4,3][2,1,6][7,0,8]]
[[2,5,4][1,0,6][7,3,8]]
[[2,0,3][1,4,5][7,8,6]]
[[2,4,3][0,1,5][7,8,6]]
[[2,5,4][1,8,0][7,6,3]]
[[2,3,0][7,4,5][8,1,6]]
[[0,3,5][2,7,4][8,1,6]]
[[2,3,5][8,7,4][0,1,6]]
```

```
[[2,3,5][7,1,4][8,6,0]]
[[5,7,0][2,3,4][8,1,6]]
[[0,7,4][5,2,3][8,1,6]]
[[5,7,4][8,2,3][0,1,6]]
[[5,7,4][2,1,3][8,6,0]]
[[2,5,0][8,3,4][1,7,6]]
[[0,5,4][2,8,3][1,7,6]]
[[2,5,4][1,8,3][0,7,6]]
[[2,5,0][8,7,4][1,6,3]]
[[2,5,4][8,0,7][1,6,3]]
[[2,1,5][7,0,4][8,6,3]]
[[0,5,4][2,7,1][8,6,3]]
[[2,5,4][8,7,1][0,6,3]]
[[2,5,4][7,6,1][8,3,0]]
[[5,1,0][2,3,4][7,8,6]]
[[0,1,4][5,2,3][7,8,6]]
[[2,3,5][1,0,4][7,8,6]]
[[7,2,5][3,4,0][8,1,6]]
[[7,2,5][3,1,4][8,0,6]]
[[7,2,5][8,3,4][1,0,6]]
[[5,0,3][2,4,7][8,1,6]]
[[5,4,3][0,2,7][8,1,6]]
[[5,4,3][2,1,7][8,0,6]]
[[2,4,1][7,5,0][8,6,3]]
[[5,0,3][2,4,1][7,8,6]]
[[5,4,3][0,2,1][7,8,6]]
[[5,4,3][2,0,6][8,7,1]]
[[2,3,5][7,4,6][8,0,1]]
[[5,7,4][0,1,3][2,8,6]]
[[2,5,4][8,3,6][1,0,7]]
[[7,2,5][0,1,4][8,6,3]]
[[5,4,3][0,7,6][2,8,1]]
[[0,3,5][2,1,4][7,8,6]]
[[2,3,5][1,0,4][7,8,6]]
[[0,5,4][2,6,1][7,8,3]]
[[2,5,4][6,0,1][7,8,3]]
[[2,4,3][8,5,6][1,0,7]]
[[2,0,4][1,5,6][7,3,8]]
[[0,2,3][1,4,5][7,8,6]]
[[2,0,3][7,4,5][8,1,6]]
[[2,0,4][8,5,7][1,6,3]]
[[7,2,5][3,4,6][8,1,0]]
[[7,2,5][3,1,4][0,8,6]]
[[5,4,3][2,1,7][0,8,6]]
[[2,3,5][7,4,6][0,8,1]]
[[2,0,4][6,5,1][7,8,3]]
[[0,2,4][1,5,6][7,3,8]]
[[1,2,3][0,4,5][7,8,6]]
[[0,2,3][7,4,5][8,1,6]]
[[0,2,4][8,5,7][1,6,3]]
[[2,3,5][0,4,6][7,8,1]]
[[0,2,4][6,5,1][7,8,3]]
```

```
[[1,2,3][4,0,5][7,8,6]]
[[2,3,5][4,0,6][7,8,1]]
[[1,2,3][4,5,0][7,8,6]]
[[1,2,3][4,5,6][7,8,0]]
```

Time Taken : 2847 milliseconds

The number of nodes that are generated are : 15586 The number of nodes that are expanded are : 5764