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| 1. Missionaries and Cannibals | | |
|  | DFS | BFS |
| Length of Path | 9 edges | 7 edges |
| Number of Nodes Expanded | 10 states expanded | 10 states expanded |
| Path from Start to Goal | M on left:3  C on left:3  M on right:0  C on right:0  boat is on the left.  M on left:2  C on left:2  M on right:1  C on right:1  boat is on the right.  M on left:3  C on left:2  M on right:0  C on right:1  boat is on the left.  M on left:0  C on left:2  M on right:3  C on right:1  boat is on the right.  M on left:2  C on left:2  M on right:1  C on right:1  boat is on the left.  M on left:1  C on left:1  M on right:2  C on right:2  boat is on the right.  M on left:3  C on left:1  M on right:0  C on right:2  boat is on the left.  M on left:0  C on left:1  M on right:3  C on right:2  boat is on the right.  M on left:1  C on left:1  M on right:2  C on right:2  boat is on the left.  M on left:0  C on left:0  M on right:3  C on right:3  boat is on the right. | M on left:3  C on left:3  M on right:0  C on right:0  boat is on the left.  M on left:2  C on left:2  M on right:1  C on right:1  boat is on the right.  M on left:3  C on left:2  M on right:0  C on right:1  boat is on the left.  M on left:1  C on left:1  M on right:2  C on right:2  boat is on the right.  M on left:3  C on left:1  M on right:0  C on right:2  boat is on the left.  M on left:0  C on left:1  M on right:3  C on right:2  boat is on the right.  M on left:1  C on left:1  M on right:2  C on right:2  boat is on the left.  M on left:0  C on left:0  M on right:3  C on right:3  boat is on the right. |

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| 1. Farmer, Fox, Chicken, Grain | | |
|  | DFS | BFS |
| Length of Path | 7 edges | 7 edges |
| Number of Nodes Expanded | 7 states expanded | 10 states expanded |
| Path from Start to Goal | [Farmer Fox Chicken Grain || ]  [Fox Grain || Chicken Farmer]  [Farmer Fox Grain || Chicken]  [Grain || Chicken Farmer Fox]  [Chicken Farmer Grain || Fox]  [Chicken || Farmer Fox Grain]  [Chicken Farmer || Fox Grain]  [ || Chicken Farmer Fox Grain] | [Farmer Fox Chicken Grain || ]  [Fox Grain || Chicken Farmer]  [Farmer Fox Grain || Chicken]  [Fox || Chicken Farmer Grain]  [Chicken Farmer Fox || Grain]  [Chicken || Farmer Fox Grain]  [Chicken Farmer || Fox Grain]  [ || Chicken Farmer Fox Grain] |

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| 1. Towers of Hanoi | | |
|  | DFS | BFS |
| Length of Path | 40 edges | 18 edges |
| Number of Nodes Expanded | 40 states expanded | 70 states expanded |
| Path from Start to Goal | [[4, 3, 2, 1] ,[] ,[]]  [[4, 3, 2] ,[1] ,[]]  [[4, 3] ,[1] ,[2]]  [[4, 3, 1] ,[] ,[2]]  [[4, 3] ,[] ,[2, 1]]  [[4] ,[3] ,[2, 1]]  [[4, 1] ,[3] ,[2]]  [[4] ,[3, 1] ,[2]]  [[4, 2] ,[3, 1] ,[]]  [[4, 2, 1] ,[3] ,[]]  [[4, 2] ,[3] ,[1]]  [[4] ,[3, 2] ,[1]]  [[4, 1] ,[3, 2] ,[]]  [[4] ,[3, 2, 1] ,[]]  [[] ,[3, 2, 1] ,[4]]  [[1] ,[3, 2] ,[4]]  [[] ,[3, 2] ,[4, 1]]  [[2] ,[3] ,[4, 1]]  [[2, 1] ,[3] ,[4]]  [[2] ,[3, 1] ,[4]]  [[] ,[3, 1] ,[4, 2]]  [[1] ,[3] ,[4, 2]]  [[] ,[3] ,[4, 2, 1]]  [[3] ,[] ,[4, 2, 1]]  [[3, 1] ,[] ,[4, 2]]  [[3] ,[1] ,[4, 2]]  [[3, 2] ,[1] ,[4]]  [[3, 2, 1] ,[] ,[4]]  [[3, 2] ,[] ,[4, 1]]  [[3] ,[2] ,[4, 1]]  [[3, 1] ,[2] ,[4]]  [[3] ,[2, 1] ,[4]]  [[] ,[2, 1] ,[4, 3]]  [[1] ,[2] ,[4, 3]]  [[] ,[2] ,[4, 3, 1]]  [[2] ,[] ,[4, 3, 1]]  [[2, 1] ,[] ,[4, 3]]  [[2] ,[1] ,[4, 3]]  [[] ,[1] ,[4, 3, 2]]  [[1] ,[] ,[4, 3, 2]]  [[] ,[] ,[4, 3, 2, 1]] | [[4, 3, 2, 1] ,[] ,[]]  [[4, 3, 2] ,[1] ,[]]  [[4, 3] ,[1] ,[2]]  [[4, 3, 1] ,[] ,[2]]  [[4, 3] ,[] ,[2, 1]]  [[4] ,[3] ,[2, 1]]  [[4, 1] ,[3] ,[2]]  [[4, 1] ,[3, 2] ,[]]  [[4] ,[3, 2, 1] ,[]]  [[] ,[3, 2, 1] ,[4]]  [[1] ,[3, 2] ,[4]]  [[] ,[3, 2] ,[4, 1]]  [[2] ,[3] ,[4, 1]]  [[2, 1] ,[3] ,[4]]  [[2, 1] ,[] ,[4, 3]]  [[2] ,[1] ,[4, 3]]  [[] ,[1] ,[4, 3, 2]]  [[1] ,[] ,[4, 3, 2]]  [[] ,[] ,[4, 3, 2, 1]] |