

Assignment 2, in CSE 415, Autumn 2019.

Feature	DFS + Missionaries	BFS + Missionaires	DFS+farmer_fox	BFS+Farmer_Fox
Path	Solution path: M on left:3 C on left:3 M on right:0 C on right:0 boat is on the left.	Solution path: M on left:3 C on left:3 M on right:0 C on right:0 boat is on the left.	Solution path: Farmer on left:1 Fox on left:1 Grain on left:1 Chicken on left:1 Farmer on right:0 Fox on right:0 Grain on right:0 Chicken on right:0 boat is on the left.	Solution path: Farmer on left:1 Fox on left:1 Grain on left:1 Chicken on left:1 Farmer on right:0 Fox on right:0 Grain on right:0 Chicken 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:2 C on left:2 M on right:1 C on right:1 boat is on the right.		Farmer on left:0 Fox on left:1 Grain on left:1 Chicken on left:0 Farmer on right:1 Fox on right:0 Grain on right:0 Chicken 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:3 C on left:2 M on right:0 C on right:1 boat is on the left.	Farmer on left:0 Fox on left:1 Grain on left:1 Chicken on left:0 Farmer on right:1 Fox on right:0 Grain on right:0 Chicken on right:1 boat is on the right.	Farmer on left:1 Fox on left:1 Grain on left:1 Chicken on left:0 Farmer on right:0 Fox on right:0 Grain on right:0 Chicken 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:1 C on left:1 M on right:2 C on right:2 boat is on the right.	Farmer on left:1 Fox on left:1 Grain on left:1 Chicken on left:0 Farmer on right:0 Fox on right:0 Grain on right:0 Chicken on right:1 boat is on the left.	Farmer on left:0 Fox on left:1 Grain on left:1 Chicken on left:0 Farmer on right:0 Fox on right:0 Grain on right:0 Chicken on right:1 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 left.	M on left:3 C on left:1 M on right:0 C on right:2 boat is on the left.		Farmer on left:0
	M on left:1 C on left:1 M on right:2 C on right:2			

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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: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.	boat is on the left. Farmer on left:0 Fox on left:0 Grain on left:1 Chicken on left:0 Farmer on right:1 Fox on right:1 Grain on right:0 Chicken on right:1 boat is on the right. Farmer on left:1 Fox on left:0 Grain on left:1 Chicken on left:1 Farmer on right:0 Fox on right:1 Grain on right:0 Chicken on right:0 boat is on the left. Farmer on left:0 Fox on left:0 Grain on left:0 Chicken on left:1 Farmer on right:1 Fox on right:1 Grain on right:1 Chicken on right:0	Fox on left:0 Grain on left:1 Chicken on left:0 Farmer on right:1 Fox on right:1 Grain on right:0 Chicken on right:1 boat is on the right. Farmer on left:1 Fox on left:0 Grain on left:1 Chicken on left:1 Farmer on right:0 Fox on right:1 Grain on right:0 Chicken on right:0 boat is on the left. Farmer on left:0 Fox on left:0 Grain on left:0 Chicken on left:1 Farmer on right:1 Fox on right:1 Grain on right:1 Chicken on right:0 boat is on the right. Farmer on left:1 Fox on left:0 Grain on left:0 Chicken on left:1 Farmer on right:0
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			boat is on the right. Farmer on left:1 Fox on left:0 Grain on left:0 Chicken on left:1 Farmer on right:0 Fox on right:1 Grain on right:1 Chicken on right:0 boat is on the left. Farmer on left:0 Fox on left:0 Grain on left:0 Chicken on left:0 Farmer on right:1 Fox on right:1 Grain on right:1 Chicken on right:1 boat is on the right.	Fox on right:1 Grain on right:1 Chicken on right:0 boat is on the left. Farmer on left:0 Fox on left:0 Grain on left:0 Chicken on left:0 Farmer on right:1 Fox on right:1 Grain on right:1 Chicken on right:1 boat is on the right.
Nodes	10	10	7	9
Path Length	9	7	7	7

Feature	by Hung Lo BFS+Hanai_tower 4disks UWNetID: honkuro Solution path: Student number: 1926128	BFS+Hanai_tower
Path	<p>Assignment 2 in CSE 415, Autumn 2019.</p> <p>[[4, 3, 2, 1], [], []]</p> <p>[[4, 3], [1], [2]]</p> <p>[[4, 3, 1], [], [2]]</p> <p>[[4, 3], [], [2, 1]]</p> <p>[[4], [3], [2, 1]]</p> <p>[[4, 1], [3], [2]]</p> <p>[[4], [3, 1], [2]]</p> <p>[[4, 2], [3, 1], []]</p> <p>[[4, 2, 1], [3], []]</p> <p>[[4, 2], [3], [1]]</p> <p>[[4], [3, 2], [1]]</p> <p>[[4, 1], [3, 2], []]</p> <p>[[4], [3, 2, 1], []]</p> <p>[[], [3, 2, 1], [4]]</p> <p>[[1], [3, 2], [4]]</p> <p>[[], [3, 2], [4, 1]]</p> <p>[[2], [3], [4, 1]]</p> <p>[[2, 1], [3], [4]]</p> <p>[[2], [3, 1], [4]]</p> <p>[[], [3, 1], [4, 2]]</p> <p>[[1], [3], [4, 2]]</p> <p>[[], [3], [4, 2, 1]]</p> <p>[[3], [], [4, 2, 1]]</p> <p>[[3, 1], [], [4, 2]]</p> <p>[[3], [1], [4, 2]]</p> <p>[[3, 2], [1], [4]]</p> <p>[[3, 2, 1], [], [4]]</p> <p>[[3, 2], [], [4, 1]]</p> <p>[[3], [2], [4, 1]]</p> <p>[[3, 1], [2], [4]]</p> <p>[[3], [2, 1], [4]]</p> <p>[[], [2, 1], [4, 3]]</p> <p>[[1], [2], [4, 3]]</p> <p>[[], [2], [4, 3, 1]]</p>	<p>Solution path:</p> <p>[[4, 3, 2, 1], [], []]</p> <p>[[4, 3, 2], [1], []]</p> <p>[[4, 3], [1], [2]]</p> <p>[[4, 3], [], [2, 1]]</p> <p>[[4], [3], [2, 1]]</p> <p>[[4, 1], [3], [2]]</p> <p>[[4, 1], [3, 2], []]</p> <p>[[4], [3, 2, 1], []]</p> <p>[[], [3, 2, 1], [4]]</p> <p>[[], [3, 2], [4, 1]]</p> <p>[[2], [3], [4, 1]]</p> <p>[[2, 1], [3], [4]]</p> <p>[[2, 1], [], [4, 3]]</p> <p>[[2], [1], [4, 3]]</p> <p>[[], [1], [4, 3, 2]]</p> <p>[[], [], [4, 3, 2, 1]]</p>

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[[2] ,[] ,[4, 3, 1]]
[[2, 1] ,[] ,[4, 3]]
[[2] ,[1] ,[4, 3]]
[[] ,[1] ,[4, 3, 2]]
[[1] ,[] ,[4, 3, 2]]
[[] ,[] ,[4, 3, 2, 1]]
Length of solution path
found: 40 edges
40 states expanded.
MAX_OPEN_LENGTH = 7

Nodes	40	70
Path Length	40	15