

BlindSearches

**Wayne Wang
UWNetID: wyf9686
Student Number: 1664873**

Assignment 2, in CSE 415, Autumn 2019.

Feature	DFS + Farmer_Fox	BFS + Farmer_Fox
Path	<p>Left: Farmer, Fox, Chicken, Grain Right: Boat is on the left.</p> <p>→</p> <p>Left: Fox, Grain Right: Farmer, Chicken Boat on right.</p> <p>→</p> <p>Left: Farmer, Fox, Grain Right: Chicken boat is on the left.</p> <p>→</p> <p>Left: Grain Right: Farmer, Fox, Chicken Boat is on the right.</p> <p>→</p> <p>Left: Farmer, Chicken, Grain Right: Fox Boat is on the left.</p> <p>→</p> <p>Left: Chicken Right: Farmer, Fox, Grain Boat is on the right.</p> <p>→</p> <p>Left: Farmer, Chicken Right: Fox, Grain Boat is on the left.</p> <p>→</p> <p>Left: Right: Farmer, Fox, Chicken, Grain Boat is on the right.</p>	<p>Left: Farmer, Fox, Chicken, Grain Right: Boat is on the left.</p> <p>→</p> <p>Left: Fox, Grain Right: Farmer, Chicken Boat on right.</p> <p>→</p> <p>Left: Farmer, Fox, Grain Right: Chicken boat is on the left.</p> <p>→</p> <p>Left: Grain Right: Farmer, Fox, Chicken Boat is on the right.</p> <p>→</p> <p>Left: Farmer, Chicken, Grain Right: Fox Boat is on the left.</p> <p>→</p> <p>Left: Chicken Right: Farmer, Fox, Grain Boat is on the right.</p> <p>→</p> <p>Left: Farmer, Chicken Right: Fox, Grain Boat is on the left.</p> <p>→</p> <p>Left: Right: Farmer, Fox, Chicken, Grain Boat is on the right.</p>
Path Length	7	7
Nodes	7	9

Feature	DFS + Missionaries	BFS + Missionaries
Path	<p>M on left:3 C on left:3 M on right:0 C on right:0 boat is on the left. →</p> <p>M on left:2 C on left:2 M on right:1 C on right:1 boat is on the right. →</p> <p>M on left:3 C on left:2 M on right:0 C on right:1 boat is on the left. →</p> <p>M on left:0 C on left:2 M on right:3 C on right:1 boat is on the right. →</p> <p>M on left:2 C on left:2 M on right:1 C on right:1 boat is on the left. →</p> <p>M on left:1 C on left:1 M on right:2 C on right:2 boat is on the right. →</p> <p>M on left:3 C on left:1 M on right:0 C on right:2 boat is on the left. →</p>	<p>M on left:3 C on left:3 M on right:0 C on right:0 boat is on the left. →</p> <p>M on left:2 C on left:2 M on right:1 C on right:1 boat is on the right. →</p> <p>M on left:3 C on left:2 M on right:0 C on right:1 boat is on the left. →</p> <p>M on left:0 C on left:2 M on right:3 C on right:1 boat is on the right. →</p> <p>M on left:2 C on left:2 M on right:1 C on right:1 boat is on the left. →</p> <p>M on left:0 C on left:1 M on right:3 C on right:2 boat is on the right. →</p> <p>M on left:1 C on left:1 M on right:2 C on right:2 boat is on the left. →</p>

	<p>M on left:0 C on left:1 M on right:3 C on right:2 boat is on the right.</p> <p>→</p> <p>M on left:1 C on left:1 M on right:2 C on right:2 boat is on the left.</p> <p>→</p> <p>M on left:0 C on left:0 M on right:3 C on right:3 boat is on the right.</p>	<p>M on left:0 C on left:0 M on right:3 C on right:3 boat is on the right.</p>
Path Length	9	7
Nodes	10	10

Feature	DFS + TowersOfHanoi	BFS + TowersOfHanoi
Path	[[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], [], [2, 1]] → [[4], [3], [2, 1]] → [[4], [3], [2, 1]] → [[4, 1], [3], [2]] → [[4, 1], [3, 2], []] → [[4], [3, 2, 1], []] → [], [3, 2, 1], [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]] → [], [], [4, 3, 2, 1]] →
Path Length	40	15
Nodes	40	70