DFS			
Feature	Missionaries and cannibals	Farmer_Fox	Towers of Hanoi
Path	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:1 boat is on the left. M on left:2 M on right:1 boat is on the left. M on left:2 M on right:1 boat is on the right. M on left:2 C on left:2 M on right:1 boat is on the right. M on left:1 C on right:1 C on right:1 C on right:1 C on right:1 C on left:1 C on left:1	Number of Foxes on left:1 Number of Chicken on left:1 Number of Grain on left:1 Number of Farmer on left:1 Number of Foxes on right:0 Number of Chicken on right:0 Number of Farmer on right:0 boat is on the left. Number of Chicken on left:1 Number of Chicken on left:1 Number of Farmer on left:0 Number of Chicken on left:1 Number of Chicken on left:1 Number of Farmer on left:0 Number of Foxes on right:0 Number of Chicken on right:1 Number of Chicken on right:1 Number of Chicken on right:1	[[4, 3, 2, 1], [], []] [[4, 3], [1], [2]] [[4, 3], [1], [2]] [[4, 3], [], [2, 1]] [[4, 1], [3], [2]] [[4, 1], [3], [2]] [[4, 2], [3, 1], [1]] [[4, 2], [3], [1]] [[4, 2], [3], [1]] [[4], [3, 2], [1]] [[4], [3, 2], [1]] [[4], [3, 2], [1]] [[4], [3, 2], [4]] [[1], [3, 2], [4]] [[2], [3], [4, 1]] [[2], [3], [4, 1]] [[2], [3], [4, 2]] [[1], [3], [4, 2]] [[1], [3], [4, 2, 1]] [[3], [1], [4, 2]] [[3], [1], [4, 2]] [[3], [1], [4, 2]] [[3], [1], [4, 2]] [[3], [2], [4, 1]] [[3], [2], [4, 1]] [[3], [2], [4, 1]] [[3], [2], [4, 1]] [[3], [2], [4, 3]] [[1], [2], [4, 3]] [[1], [2], [4, 3]] [[2], [1], [4, 3]] [[2], [1], [4, 3]] [[2], [1], [4, 3]] [[2], [1], [4, 3]] [[2], [1], [4, 3]] [[2], [1], [4, 3]] [[2], [1], [4, 3]] [[1], [2], [4, 3, 2]] [[1], [1], [4, 3, 2]]
	M on right:2	_	

C on right:2 Number of boat is on the Farmer on right. right:1 boat is on the right. M on left:3 C on left:1 Number of Foxes M on right:0 C on right:2 on left:1 boat is on the Number of left. Chicken on left:0 Number of Grain M on left:0 on left:1 C on left:1 Number of M on right:3 Farmer on left:1 C on right:2 boat is on the Number of right. Foxes on right:0 Number of Chicken on M on left:1 right:1 C on left:1 Number of M on right:2 Grain on right:0 C on right:2 Number of boat is on the Farmer on left. right:0 boat is on the left. M on left:0 C on left:0 Number of Foxes M on right:3 C on right:3 on left:0 boat is on the Number of right. Chicken on left:0 Number of Grain on left:1 Number of Farmer on left:0 Number of Foxes on right:1 Number of Chicken on right:1 Number of Grain on right:0

Number of Foxes on left:0 Number of Chicken on left:1 Number of Grain on left:1 Number of Farmer on left:1

Number of
Foxes on right:1
Number of
Chicken on
right:0
Number of
Grain on right:0
Number of
Farmer on
right:0
boat is on the
left.

Number of Foxes on left:0 Number of Chicken on left:1 Number of Grain on left:0 Number of Farmer on left:0

Number of
Foxes on right:1
Number of
Chicken on
right:0
Number of
Grain on right:1

Number of Foxes on left:0 Number of Chicken on left:1 Number of Grain on left:0 Number of Farmer on left:1

Number of
Foxes on right:1
Number of
Chicken on
right:0
Number of
Grain on right:1
Number of
Farmer on
right:0
boat is on the
left.

Number of Foxes on left:0 Number of Chicken on left:0 Number of Grain on left:0 Number of Farmer on left:0

Number of
Foxes on right:1
Number of
Chicken on
right:1
Number of
Grain on right:1

		Number of Farmer on right:1 boat is on the right.	
Length of path	9	7	40
Number of nodes expanded	10	9	40

BFS			
Feature	Missionaries and cannibals	Farmer_Fox	Towers of Hanoi
Path	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	Number of Foxes on left:1 Number of Chicken on left:1 Number of Grain on left:1 Number of Farmer on left:1 Number of Foxes on right:0 Number of Chicken on right:0 Number of Grain on right:0 Number of Farmer on right:0 boat is on the left.	[[4, 3, 2, 1], [], []] [[4, 3, 2], [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], [4]] [[1], [3, 2], [4]] [[1], [3, 2], [4, 1]] [[2], [3], [4, 1]] [[2], [3], [4, 1]] [[2, 1], [3], [4]] [[2], [1], [4, 3]] [[1], [1], [4, 3, 2]] [[1], [1], [4, 3, 2]] [[1], [1], [4, 3, 2, 1]]
	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.	Number of Foxes on left:1 Number of Chicken on left:0 Number of Grain on left:1 Number of Farmer on left:0 Number of Foxes on right:0 Number of Chicken on right:1 Number of	
	M on left:0 C on left:1	Grain on right:0	

M on right:3 Number of C on right:2 Farmer on boat is on the right:1 right. boat is on the right. M on left:1 C on left:1 Number of Foxes M on right:2 on left:1 C on right:2 Number of boat is on the Chicken on left. left:0 Number of Grain on left:1 M on left:0 Number of C on left:0 Farmer on left:1 M on right:3 C on right:3 Number of boat is on the Foxes on right:0 Number of right. Chicken on right:1 Number of Grain on right:0 Number of Farmer on right:0 boat is on the left. Number of Foxes on left:0 Number of Chicken on left:0 Number of Grain on left:1 Number of Farmer on left:0 Number of Foxes on right:1 Number of Chicken on

right:1

Number of Grain on right:0

Number of Foxes on left:0 Number of Chicken on left:1 Number of Grain on left:1 Number of Farmer on left:1

Number of
Foxes on right:1
Number of
Chicken on
right:0
Number of
Grain on right:0
Number of
Farmer on
right:0
boat is on the
left.

Number of Foxes on left:0 Number of Chicken on left:1 Number of Grain on left:0 Number of Farmer on left:0

Number of
Foxes on right:1
Number of
Chicken on
right:0
Number of
Grain on right:1

Number of Foxes on left:0 Number of Chicken on left:1 Number of Grain on left:0 Number of Farmer on left:1

Number of
Foxes on right:1
Number of
Chicken on
right:0
Number of
Grain on right:1
Number of
Farmer on
right:0
boat is on the
left.

Number of Foxes on left:0 Number of Chicken on left:0 Number of Grain on left:0 Number of Farmer on left:0

Number of
Foxes on right:1
Number of
Chicken on
right:1
Number of
Grain on right:1

		Number of Farmer on right:1 boat is on the right.	
Length of path	7	7	18
Number of nodes expanded	10	10	70