Problem ItrDFS	Length of path	Number of nodes	path
Missionaries and	9 edges	10 states expanded.	M on left:3
Cannibals			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.
			C
			M on left:3
			C on left:2
			M on right:0
			C on right:1
			boat is on the left.
			0 0 0 0 0 10 10 10 10 10 10 10 10 10 10
			M on left:0
			C on left:2
			M on right:3
			C on right:1
			boat is on the right.
			bout is on the right.
			M 1.6.2
			M on left:2
			C on left:2 M on right:1
			C on right:1
			boat is on the left.
			boat is on the left.
			M on laft. 1
			M on left:1 C on left:1
			M on right:2
			C on right:2 boat is on the right.
			ooat is on the fight.
			M. 1.6.2
			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.
Farmer, Fox, Chicken, Grain	9 edges	11 states expanded.	Items on the left bank: ['F', 'f', 'C', 'G'] Items on the right bank: [] Farmer and Boat are on the left.
			Items on the left bank: ['f', 'G'] Items on the right bank: ['C', 'F'] Farmer and Boat are on the right.
			Items on the left bank: ['f', 'G', 'F'] Items on the right bank: ['C'] Farmer and Boat are on the left.

Items on the left bank: ['G']
Items on the right bank: ['C', 'f', 'F']
Farmer and Boat are on the right.

Items on the left bank: ['G', 'f', 'F']
Items on the right

bank: ['C']
Farmer and Boat are on the left.

Items on the left bank: ['f'] Items on the right bank: ['C', 'G', 'F'] Farmer and Boat are on the right.

Items on the left bank: ['f', 'C', 'F'] Items on the right bank: ['G'] Farmer and Boat are on the left.

Items on the left bank: ['C'] Items on the right bank: ['G', 'f', 'F'] Farmer and Boat are on the right.

Items on the left bank: ['C', 'F'] Items on the right bank: ['G', 'f']

	I		Earner and Deat and
			Farmer and Boat are
			on the left.
			Items on the left
			bank: []
			Items on the right
			bank: ['G', 'f', 'C', 'F']
			Farmer and Boat are
The state of the s	40. 1	40	on the right.
Towers of Hanoi	40 edges	40 states expanded	[[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]]

Problem ItrBFS	Length of path	Number of nodes	path
Missionaries and Cannibals	7 edges	10 states expanded.	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.
Farmer, Fox, Chicken, Grain	7 edges	15 states expanded.	Items on the left bank: ['F', 'f', 'C', 'G'] Items on the right bank: [] Farmer and Boat are on the left.
			Items on the left bank: ['f', 'G'] Items on the right bank: ['C', 'F'] Farmer and Boat are on the right.
			Items on the left bank: ['f', 'G', 'F'] Items on the right bank: ['C'] Farmer and Boat are on the left.
			Items on the left bank: ['G'] Items on the right bank: ['C', 'f', 'F'] Farmer and Boat are on the right.

	T	T	
			Items on the left bank: ['G', 'C', 'F'] Items on the right bank: ['f'] Farmer and Boat are on the left.
			Items on the left bank: ['C'] Items on the right bank: ['f', 'G', 'F'] Farmer and Boat are on the right.
			Items on the left bank: ['C', 'F'] Items on the right bank: ['f', 'G'] Farmer and Boat are on the left.
			Items on the left bank: [] Items on the right bank: ['f', 'G', 'C', 'F'] Farmer and Boat are on the right.
Towers of Hanoi	18 edges	70 states expanded.	[[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],[3],[2]] [[4, 1],[3],[2]] [[4, 1],[3, 2],[]] [[4],[3, 2, 1],[]] [[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],[1],[4,3,2]]
	[[],[],[4, 3, 2, 1]]

Problem IDDFS	Length of path	Number of nodes	path
Missionaries and	9 edges	11 states expanded.	M on left:3
Cannibals	y eages	Tr states emparada.	C on left:3
Caminouis			M on right:0
			C on right:0
			boat is on the left.
			bout 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.
			bout 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.
Farmer, Fox, Chicken, Grain	9 edges	30 states expanded.	Items on the left bank: ['F', 'f', 'C', 'G'] Items on the right bank: [] Farmer and Boat are on the left.
			Items on the left bank: ['f', 'G'] Items on the right bank: ['C', 'F'] Farmer and Boat are on the right.
			Items on the left bank: ['f', 'G', 'F']

Items on the right bank: ['C'] Farmer and Boat are on the left. Items on the left bank: ['G'] Items on the right bank: ['C', 'f', 'F'] Farmer and Boat are on the right. Items on the left bank: ['G', 'f', 'F'] Items on the right bank: ['C'] Farmer and Boat are on the left. Items on the left bank: ['f'] Items on the right bank: ['C', 'G', 'F'] Farmer and Boat are on the right. Items on the left bank: ['f', 'C', 'F'] Items on the right bank: ['G'] Farmer and Boat are on the left. Items on the left bank: ['C'] Items on the right bank: ['G', 'f', 'F'] Farmer and Boat are on the right.

			Items on the left bank: ['C', 'F'] Items on the right bank: ['G', 'f'] Farmer and Boat are on the left.  Items on the left bank: [] Items on the right bank: ['G', 'f', 'C', 'F'] Farmer and Boat are on the right.
Towers of Hanoi	40 edges	104 states expanded.	[[4, 3, 2, 1],[],[]] [[4, 3, 2],[1],[]] [[4, 3],[1],[2]] [[4, 3],[],[2, 1]] [[4, 3],[],[2, 1]] [[4, 1],[3],[2]] [[4, 1],[3],[2]] [[4, 2],[3, 1],[]] [[4, 2],[3],[1]] [[4, 2],[3],[1]] [[4, 2],[3],[1]] [[4, 1],[3, 2],[1]] [[4, 1],[3, 2],[1]] [[4],[3, 2, 1],[4]] [[1],[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, 1]] [[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, 1]] [[3],[2],[4, 1]] [[3],[2],[4, 1]] [[3],[2],[4, 1]] [[3],[2],[4, 1]] [[3],[2],[4, 1]] [[3],[2],[4, 1]] [[3],[2],[4, 1]] [[3],[2],[4, 1]] [[3],[2],[4, 1]] [[3],[2],[4, 1]] [[3],[2],[4, 1]] [[3],[2],[4]] [[3],[2],[4]] [[3],[2],[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]]