Name:

NetID:

1.) Given the wumpus world answer the following questions

3	?	B = breeze, only felt next to squares with pits
2	B (ok)	?
1	(ok)	B (ok)	?
	1	2	3
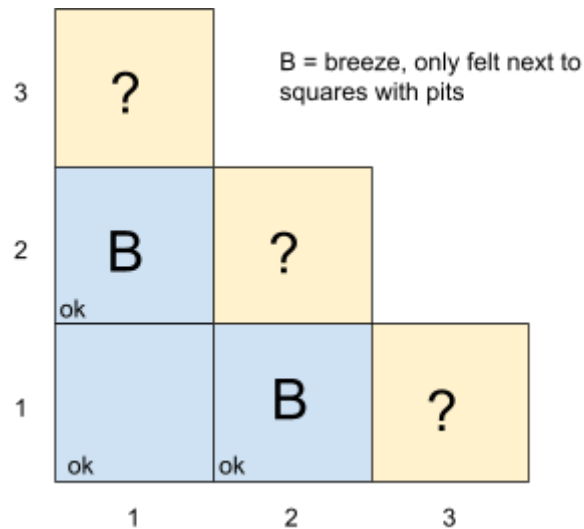
a.) What would a logic based agent conclude about the three squares with question marks in them ([1,3], [2,2], [3,1])? Which square would a logical agent move into next? Would it move at all?

It's impossible to tell where a pit is so a logical agent wouldn't move

b.) Which of the squares do you personally think is the most likely to contain the pit(s)? Explain your reasoning. If you had to pick one of the three to move into, which would you choose?

I think it's in (2,2), I would move into one of the side ones.

* completion *

2.) Constraint propagation is when, after making a choice of a value to assign to a variable in a CSP, the newly discovered constraints are propagated forward to future states and their domains. Given below is a problem in which each row, each column, and the upper left to lower right diagonal all need to sum to 6. Each square can have a single value in it from the domain of {1, 2, 3}. Shown below are the first four states in the DFS search with constraint propagation applied. Fill in the missing state.
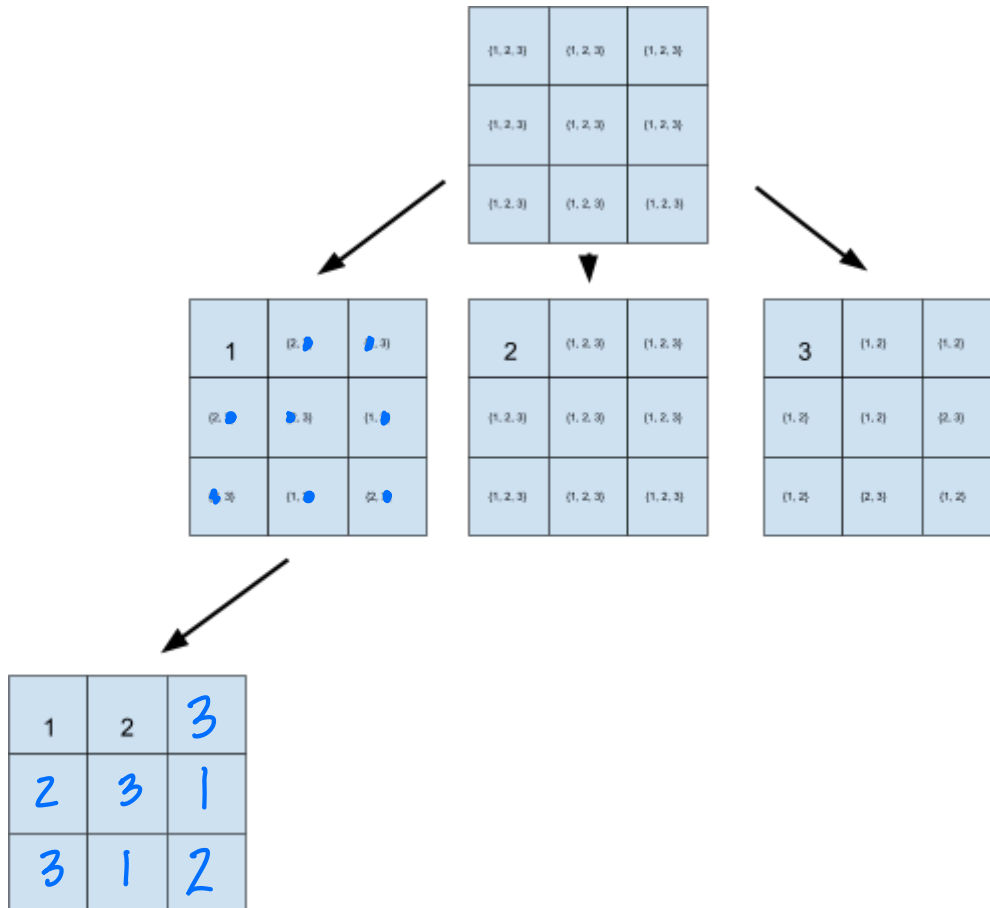
Why would we typically prefer to use DFS rather than BFS for constraint satisfaction problems and backtracking?

the solution will be at a leaf node and DFS gets us there faster and is recursively set up better for backtracking