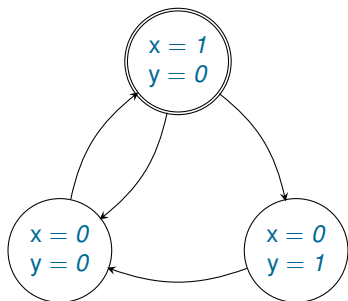


Outline

Exercise 11 Problem 1

Exercise 11. Problem 1

Consider a transition system with the following state transition graph.



The initial state is the top one. Let S_1 be the set of states symbolically represented by the formula $x = 1$ and S_2 be the set of states symbolically represented by the formula $x = 0 \wedge y = 1$.

1. State whether or not S_1 coincide with the set of initial states.
2. Find a symbolic representation of the set of states reachable from S_2 in exactly two steps.
3. Find a symbolic representation of the set of states backward reachable from S_2 in exactly three steps.