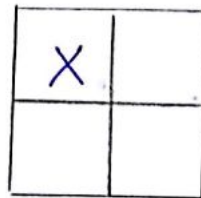


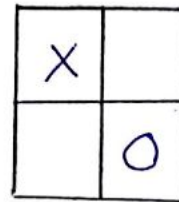
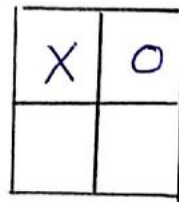
Problem 1:-

Let us start with the initial state

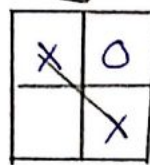
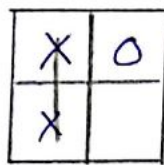


Every other possible state is a symmetrical version of the state.

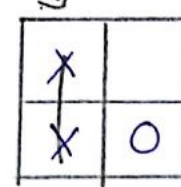
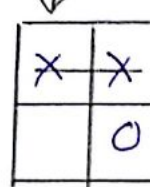
The unique possible states from the initial state are :



The next course of action available to X are.



Goal states (or)
End states



These are also symmetrical combinations of the first state.

Thus in all the cases 'X' always loses on second turn and 'O' wins.

The two possible combinations are goal states of 'O'