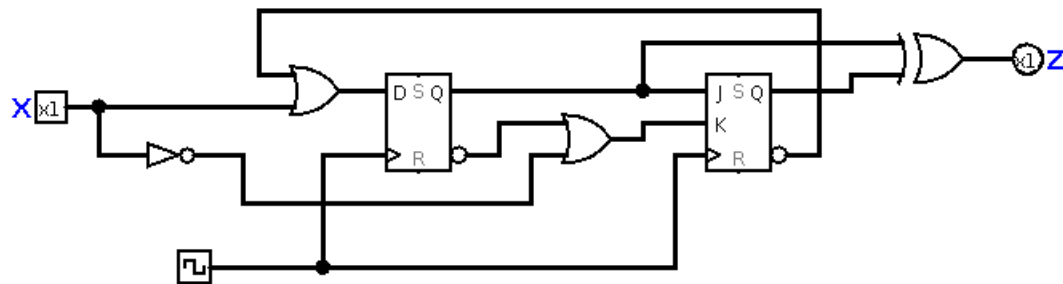


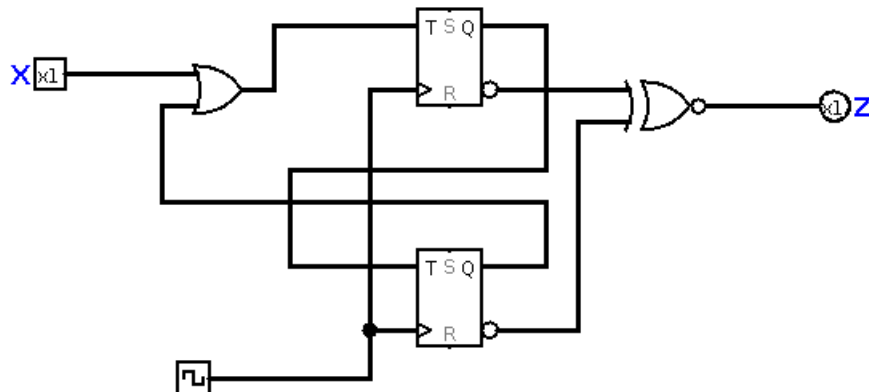
1. For each of the following circuits.

- Create the transition tables for the two flip-flops.
- Create the transition table.
- Create the next state table.
- Create the output table.
- Create the next state/output table.
- Create the state diagram.

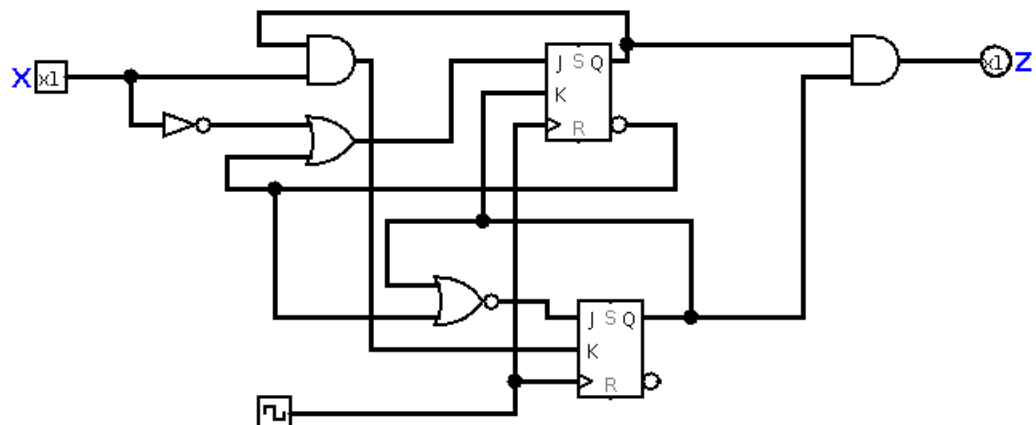
(a) In the following circuit, the right flip-flop is a JK flip-flop and the left flip-flop is a D flip-flop.



(b) In the following circuit, both flip-flops are T flip-flops.



(c) In the following circuit, both flip-flops are JK flip-flops.



2. For each of the following, design the sequential circuit that detects the given sequence.
- (a) Input sequence of 0110 with overlap. Use only D flip-flops in your construction.
 - (b) Input sequence of 0110 with overlap. Use only T flip-flops in your construction.
 - (c) Input sequence of 0110 without overlap. Use only JK flip-flops in your construction.
 - (d) Input sequence of 1100 without overlap. Use only JK flip-flops in your construction.