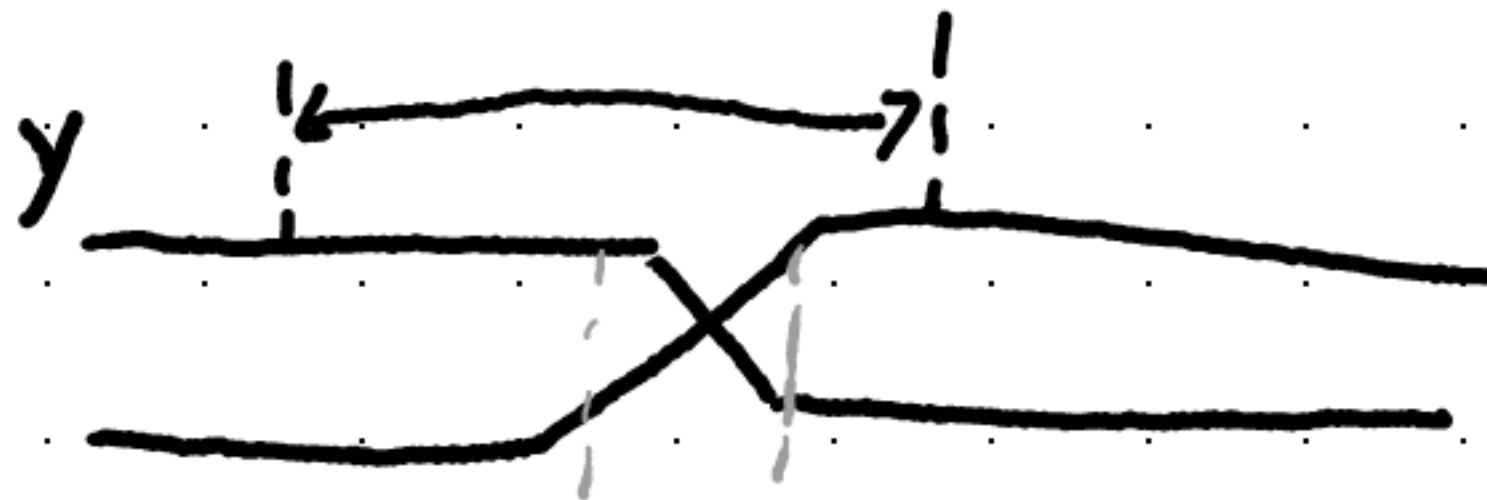


# Hazards

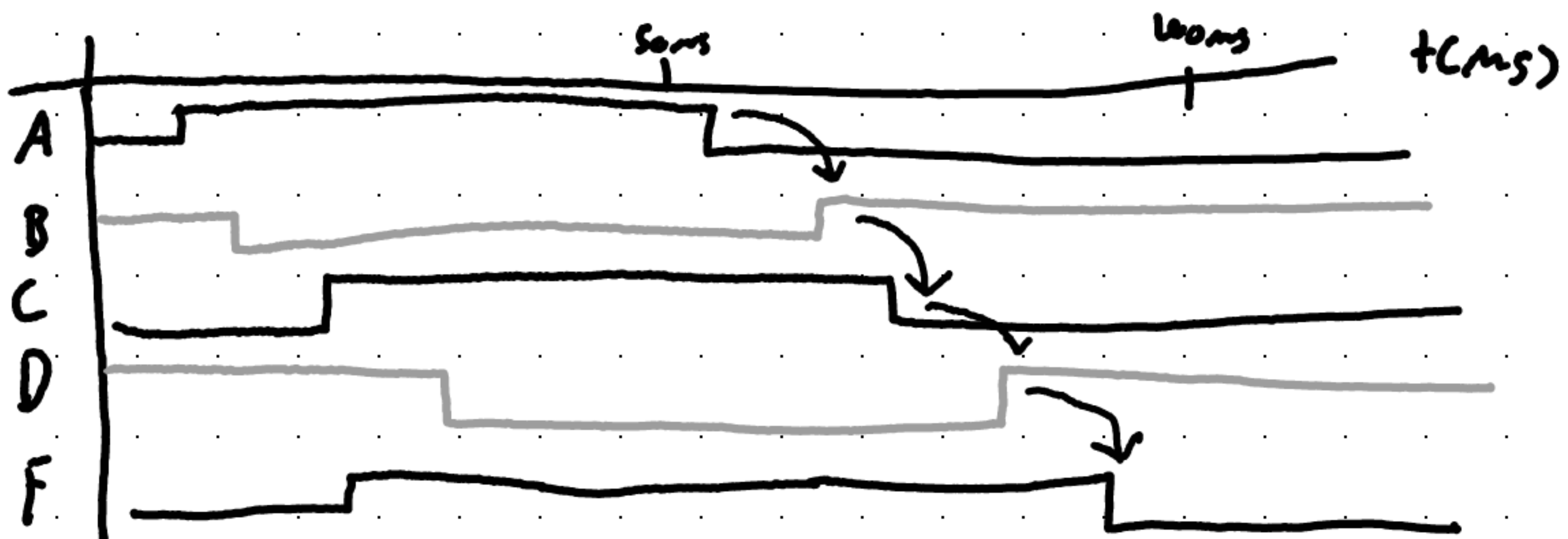
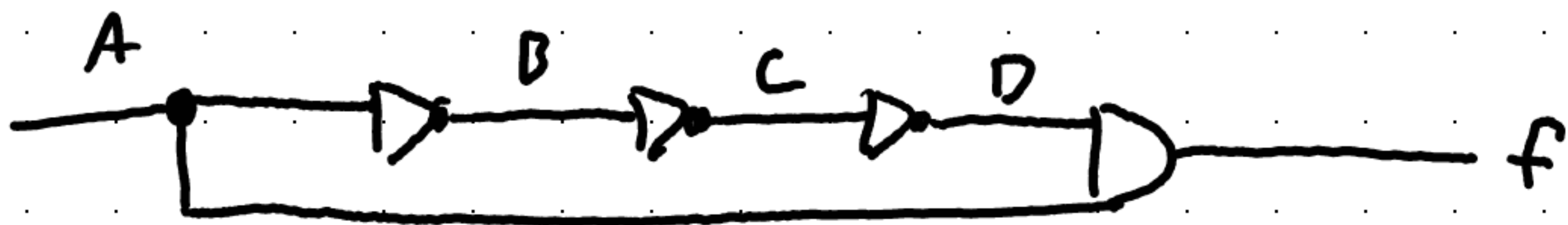


Propagation Delay.

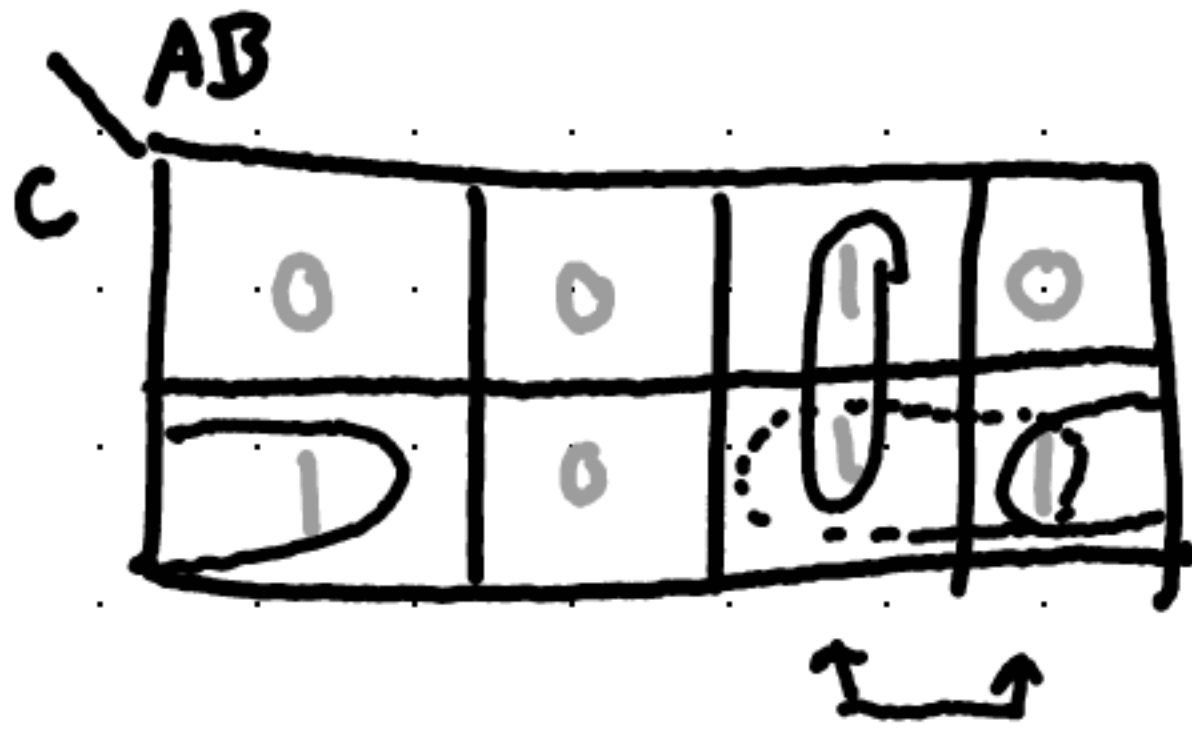
The FET's or or transistors to change after a voltage has been applied.



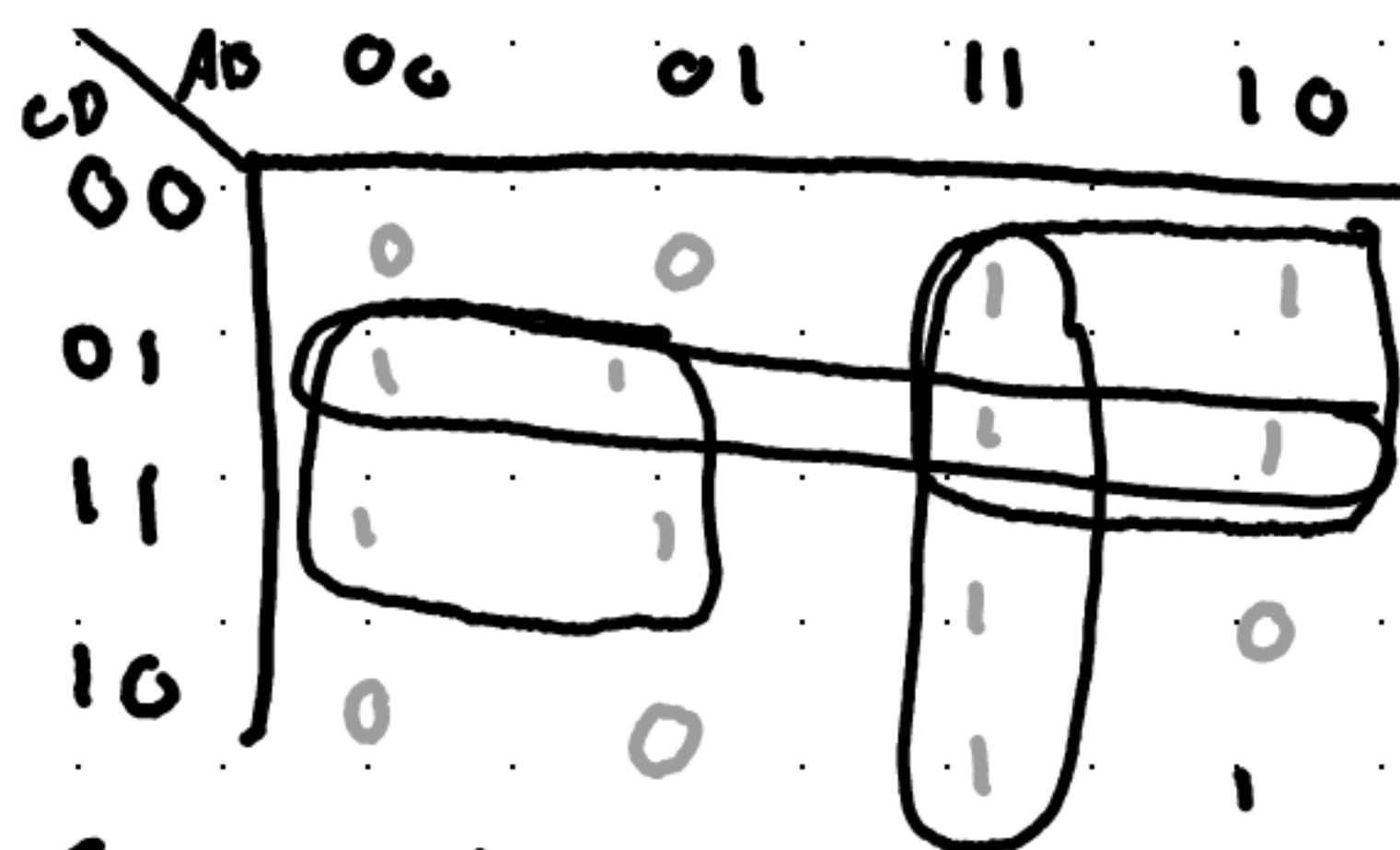
We can also have IO delay



When checking a circuit, you must do extra  
stuff to ensure a lack of hazard.

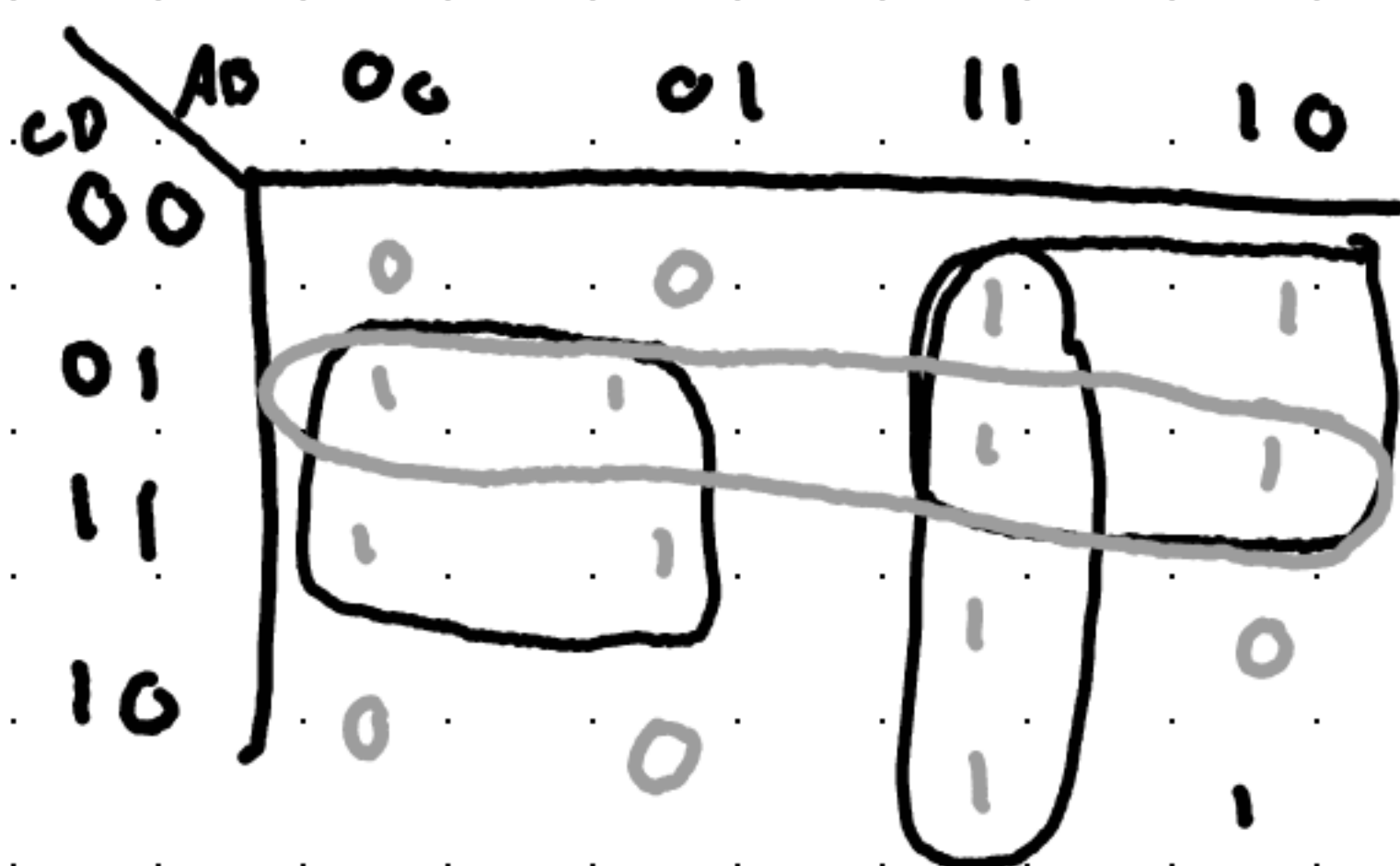


We can add these two in the K-map  
to make the circuit hazard free. However,  
this adds circuitry, and cost to a design.



SOP (1's)

$$f = \bar{A} \cdot D + \bar{C} \cdot D + A \cdot B + A \cdot \bar{C}$$



- Essential Prime Implicant
- Inessential Prime Implicant