1. **T + Gate:** Circuit in Lecture 16, Last Slide (4p) (or Equivalent)

   - Domino:
     
     \[ C_0 = \overline{A\overline{B}} + B\overline{C} + A\overline{C} \]
     
     \[ S = A \oplus \overline{B} \oplus \overline{C} = \overline{A} \overline{B} \overline{C} + A B C + \overline{A} B \overline{C} + A B C \]

   ![Diagram of T + Gate](image)

   \[(2p) \quad \rightarrow \quad (2p) = (4p)\]

   Other solutions are possible.

   **Note:** If your circuit contains illegal connections, 1 (4p) 1. Too difficult to implement in domino and cannot guarantee monotonicity.

   \( \Rightarrow \) Need multiple clocks to implement!

   \[(2p) 2. \text{Multiple paths with unequal lengths} \Rightarrow \text{Glitching} \rightarrow \text{Fatal for dynamic gates} \]

**Note:** Half credit for: "Power need to distribute clocks etc."

**No Credit for:** Area, number of transistors, etc.