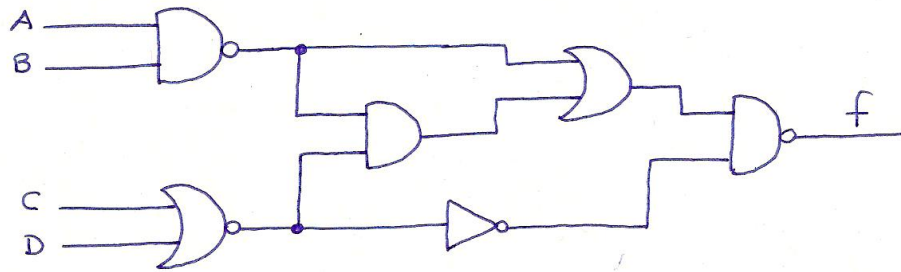


- ① NAND atepak erabiliz honako funtzio honen zirkuitua egin:

$$f(A,B,C) = \bar{A} \cdot B \cdot C + A \cdot \bar{B} \cdot C + A \cdot B \cdot C$$

- ② Honako zirkuitu honen funtzio sinplifikatua idatzi



- ③ Morgan-en legeak erabiliz ondoko funtzioaren eskema egin

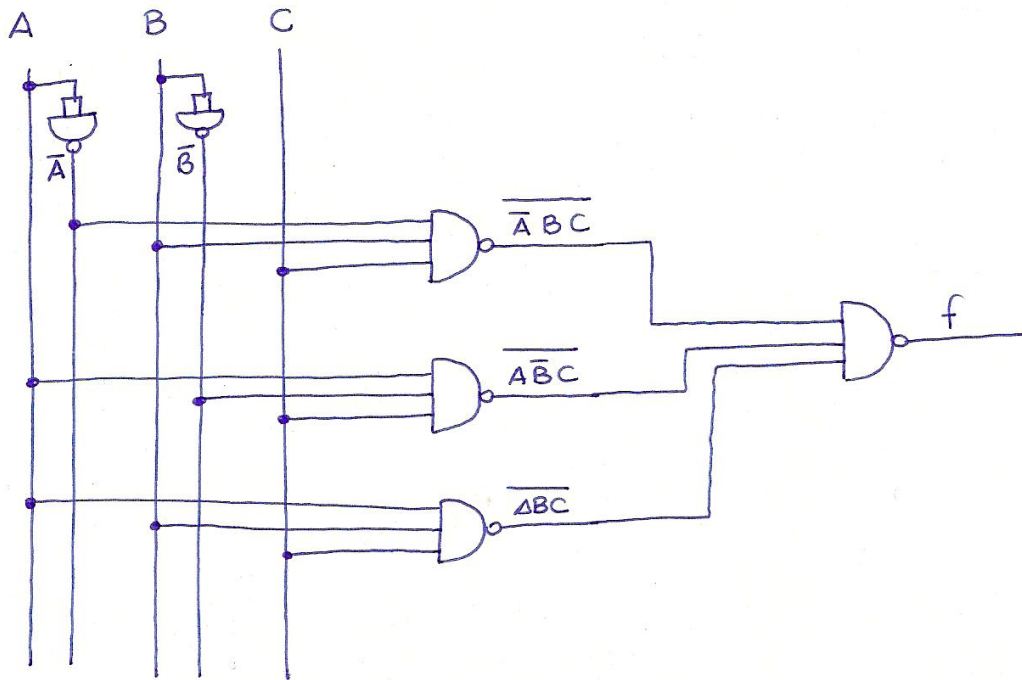
a) NAND atepak erabiliz

b) NOR atepak erabiliz

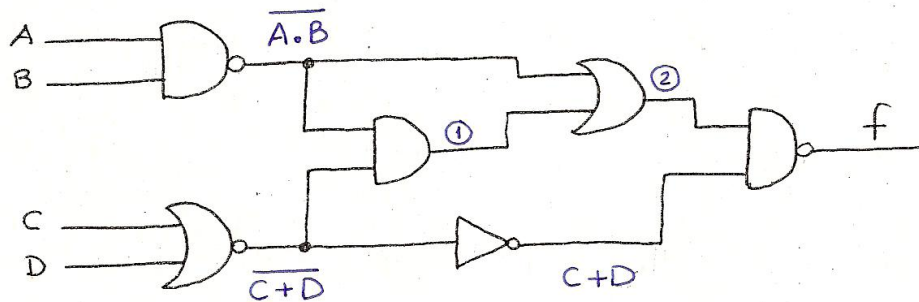
$$f = A \cdot B \cdot \bar{C} + \bar{B} \cdot C$$

①

$$f = \overline{\overline{ABC + \overline{A}BC + A\overline{B}C}} = \overline{\overline{ABC} \cdot \overline{A\overline{B}C} \cdot \overline{A\overline{B}C}}$$



② Honako zirkuitu honen funtzio sinplifikatua idatzi



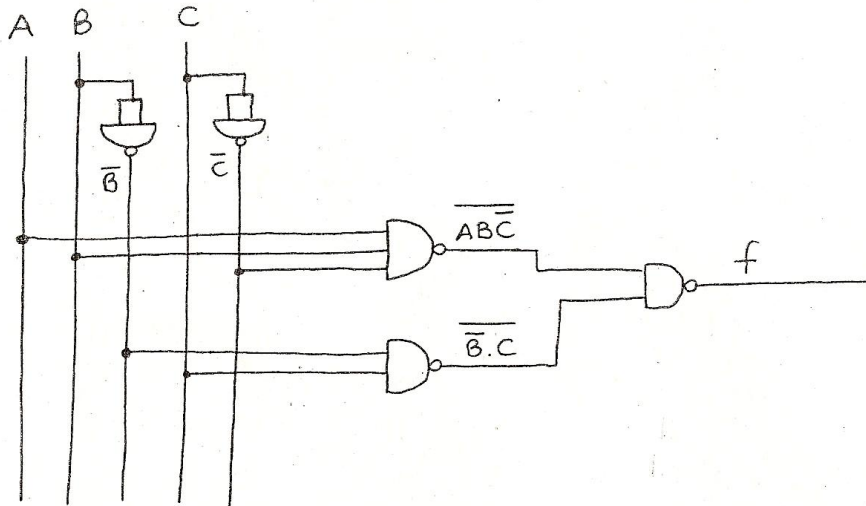
① $\overline{AB} \cdot \overline{C+D}$

② $\overline{AB} + \overline{AB} \cdot \overline{C+D} = \overline{AB} (1 + \overline{C+D}) = \overline{AB}$

f $f = \overline{\overline{AB} \cdot (C+D)} = AB + \overline{C+D} = AB + \overline{C} \cdot \overline{D}$

③ a) NAND

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



b) NOR

Batugaiak: $\left. \begin{array}{l} \overline{ABC} = \overline{\bar{A} + \bar{B} + C} \\ \overline{\bar{B}C} = \overline{B + \bar{C}} \end{array} \right\} \begin{array}{l} \text{biak elkartu} \\ \text{eta ukatu} \end{array}$

