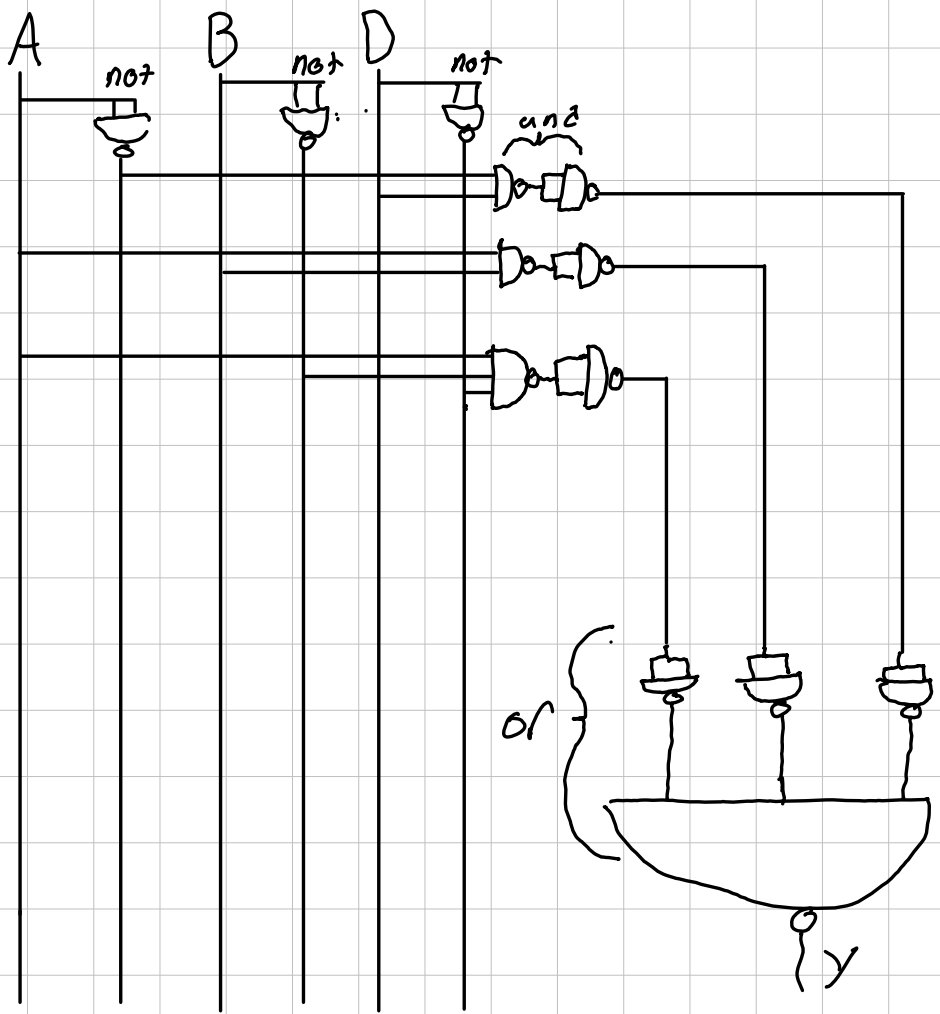
NAND

$$y = \bar{A}D + AB + A\bar{B}\bar{D}$$

$$y = \overline{\overline{\bar{A}D} + \overline{AB} + \overline{A\bar{B}\bar{D}}}$$

$$y = \overline{\overline{\bar{A}D} \cdot \overline{AB} \cdot \overline{A\bar{B}\bar{D}}}$$

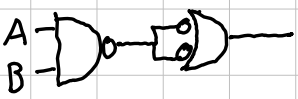
See conv →

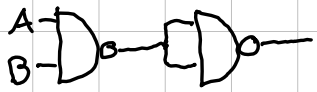


$\overline{A} = \overline{(A,A)}$

$AB = \overline{\overline{(A,B)}}$

11 or 00





$A \oplus B = \overline{\overline{A}\,\overline{B}}$