

XNOR: 

INPUTS		O/P
A	B	
B		

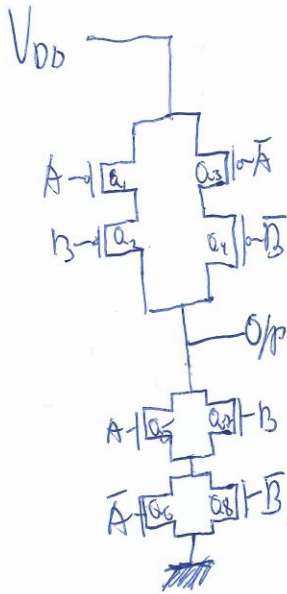
Example

$$Y (\overline{A}B + C) + E(F + G)$$

$$\overline{Y} = A\overline{B}\overline{C} \cdot (E + F + G)$$

A/B	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>	Q <sub>4</sub>	Q <sub>5</sub>	Q <sub>6</sub>	Q <sub>7</sub>	Q <sub>8</sub>	O/P
0/0	ON	ON	OFF	OFF	OFF	ON	OFF	ON	1
0/1	ON	OFF	OFF	ON	OFF	ON	ON	OFF	0
1/0	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	0
1/1	OFF	OFF	ON	ON	ON	ON	ON	OFF	1

$$E = 1 \quad F = 0 \quad G = 0$$



XOR

NXNOR

$$AB + \overline{A}\overline{B}$$

$$\overline{AB} \cdot \overline{\overline{A}\overline{B}}$$

$$(\overline{A} + \overline{B}) \cdot (\overline{\overline{A}} + \overline{\overline{B}})$$

$$\overline{X} = (\overline{A} + \overline{B}) \cdot (A + B)$$

$\overline{X} \Rightarrow Y$  PDN / PUN:

	PDN	PUN
AND	S	P
OR	P	S

