


0	1		 No ↑ $X = \bar{X}$	0	0		 Buffer $X = X$
0	0	0	 AND $A \cdot A = A + A$ $F = X \cdot Y$	0	0	1	 NAND $\overline{A \cdot A} = \overline{A} + \overline{A}$ $F = \overline{X \cdot Y}$
0	1	0	 OR $A + B = \overline{\overline{A} \cdot \overline{B}} = \overline{\overline{A}} + \overline{\overline{B}}$ $F = X + Y$	0	0	1	 NOR $\overline{A + B} = \overline{\overline{\overline{A} + \overline{B}}} = \overline{\overline{A}} \cdot \overline{\overline{B}}$ $F = \overline{X + Y}$
0	1	1		0	0	0	
1	0	0		1	0	0	
1	1	1	 EXOR $X \oplus Y = \overline{X} \cdot Y + X \cdot \overline{Y}$	0	0	1	 EXNOR $X \ominus Y = \overline{X} \cdot Y + X \cdot \overline{Y}$
0	0	1		0	1	0	
1	0	1		1	0	0	
1	1	0		1	1	1	

4, 8, 9