

(Lecture) Truth Table

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$$\begin{aligned}
 &\rightarrow (\bar{x} + y) \cdot \bar{x} \\
 &= \bar{x} \cdot \bar{x} + \bar{x} \cdot y \\
 &= \bar{x} + \bar{x} \cdot y \\
 &= \bar{x} (1 + y) \\
 &= \bar{x} \cdot 1 = \bar{x} \text{ Ans}
 \end{aligned}$$

x	y	x'	x'+y	(x'+y)·x
0	0	1	1	1
0	1	1	1	1
1	0	0	0	0
1	1	0	1	0

$$\rightarrow x \cdot y + x y' = x \oplus y$$

x	y	x'	y'	x'y	xy'	x'y + xy'	x ⊕ y
0	0	1	1	0	0	0	0
0	1	1	0	0	0	1	1
1	0	0	1	0	1	1	1
1	1	0	0	0	0	0	0