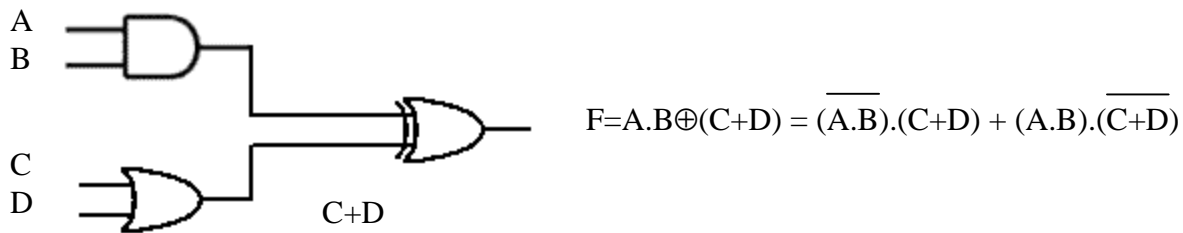
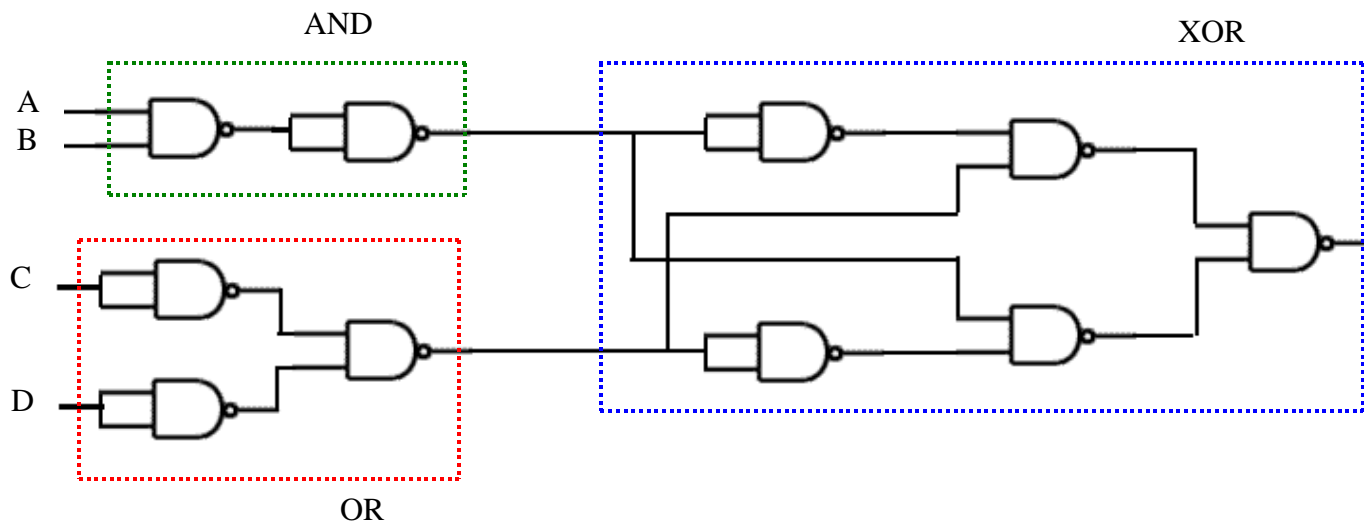


2) 2)



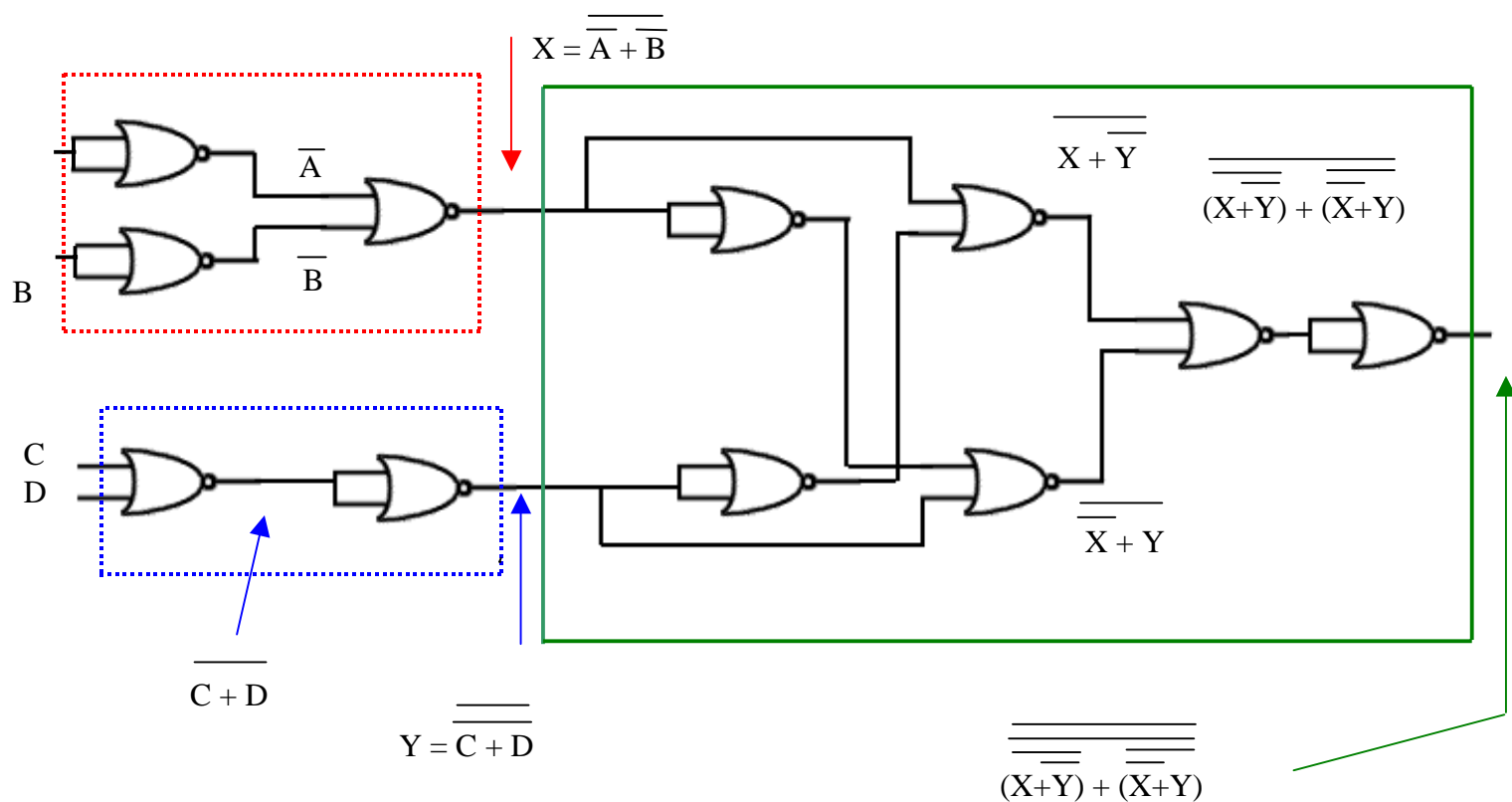
Sólo con NAND



$$F = \overline{(A.B)}.(C+D) + (A.B).\overline{(C+D)} = \overline{(A.B)}.\overline{(C.D)} + \overline{(A.B)}.\overline{(C.D)} =$$

$$\overline{(A.B)}.\overline{(C.D)} + \overline{(A.B)}.\overline{(C.D)} = \overline{(A.B)}.\overline{(C.D)} + \overline{(A.B)}.\overline{(C.D)}$$

Sólo con NOR



$$\text{XOR} = \overline{\overline{X}} \cdot Y + X \cdot \overline{\overline{Y}} = \overline{\overline{X \cdot Y}} + \overline{\overline{X \cdot \overline{Y}}} = \overline{\overline{X+Y}} + \overline{\overline{X+\overline{Y}}} =$$

$$\overline{\overline{\overline{X+Y} + \overline{\overline{X+Y}}}}$$