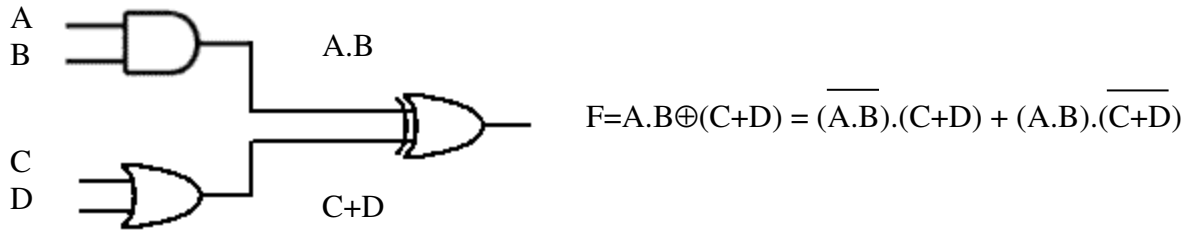
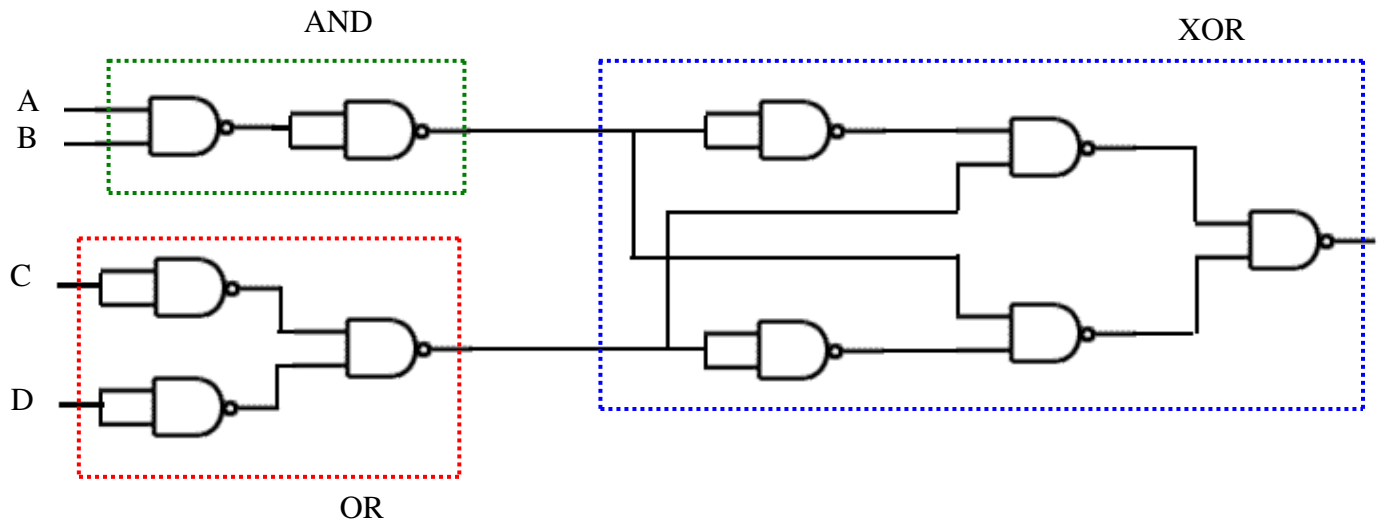


2) 2)



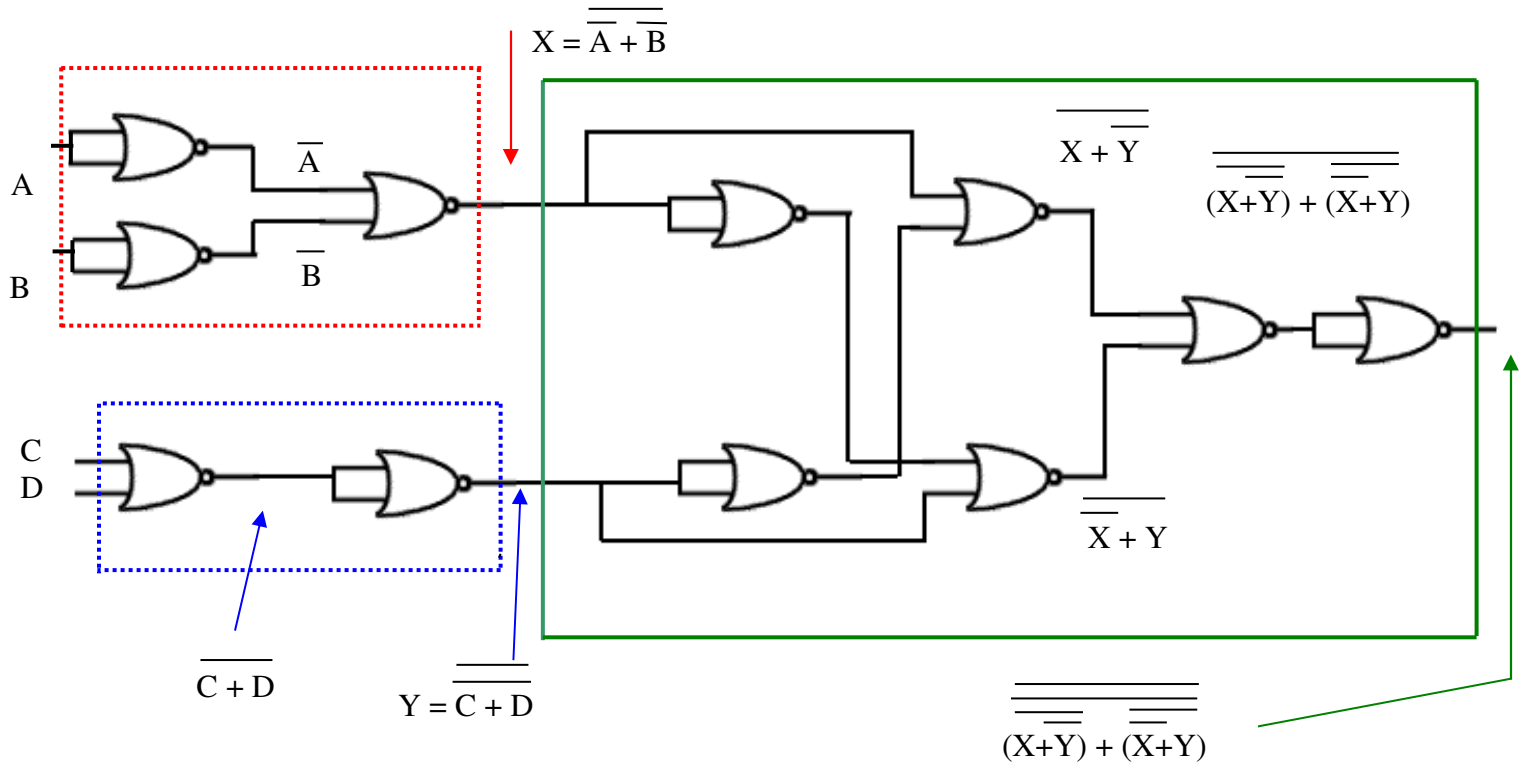
Sólo con Nand



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

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

3) 2) Sólo con NOR



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

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