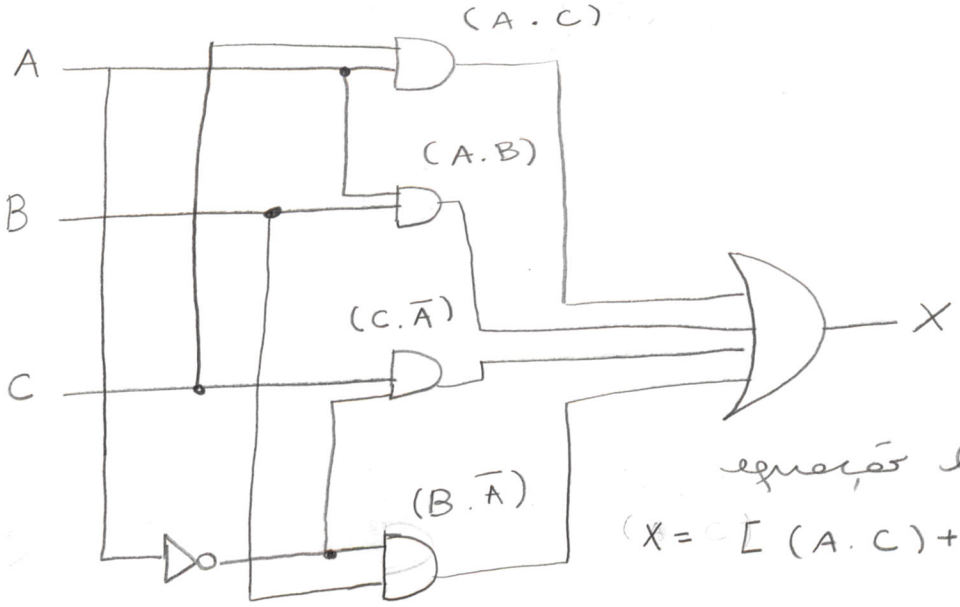
Patrick Dias dos Santos.




equação booleana:

$X = [(A \cdot C) + (A \cdot B) + (C \cdot \bar{A}) + (B \cdot \bar{A})]$

Tabela Verdade

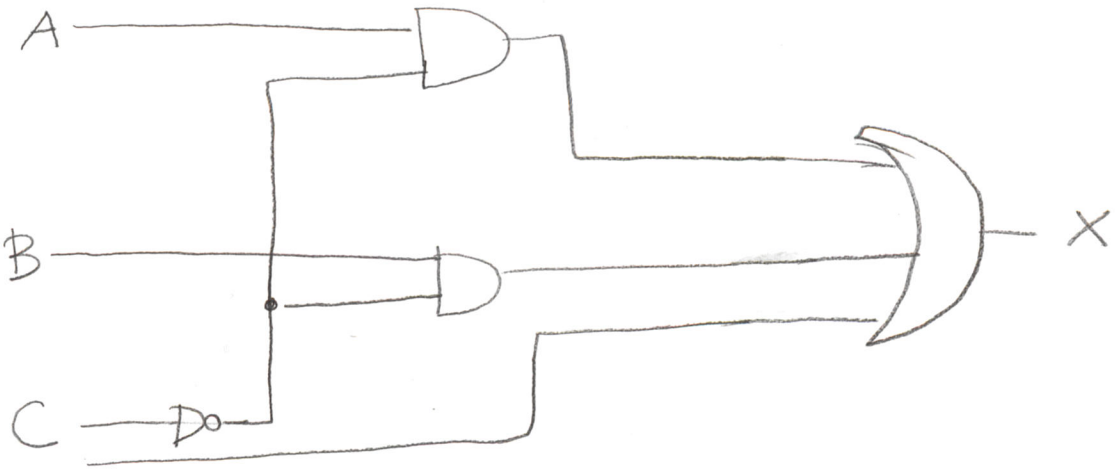
| A | B | C | A . C | A . B | C . Ā | B . Ā | X |
|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |

Simplificar tabela:

| | $\bar{A}\bar{B}$ | $\bar{A}B$ | $AB$ | $A\bar{B}$ |
|---|---|---|---|---|
| $\bar{C}$ | 0 | 1 | 1 | 1 |
| $C$ | 1 | 1 | 1 | 1 |

$X = C + (\bar{A}B\bar{C} + AB\bar{C}) + (AB\bar{C} + A\bar{B}\bar{C})$

$X = C + \bar{C}(B\bar{C}) + (A\bar{C})$




| A | B | C | $B\bar{C}$ | $A\bar{C}$ | X |
|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 | 0 | 1 |