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Expressões obtidas de circuitos lógicos:

1)  $S = (A + B) \cdot (C + D)$   
 $S = (1 + 1) \cdot (1 + 1)$   
 $S = 1 \cdot 1$   
 $S = 1$

2)  $S = (A \cdot B) + 1C + (\bar{C} \cdot D)$   
 $S = (1 \cdot 1) + 0 + (0 \cdot 1)$   
 $S = 1 + 0 + 0 =$   
 $S = 1$

3)  $S = \overline{[(A \cdot B) \cdot (\bar{B} \cdot C) \cdot (\bar{B} \cdot D)]}$   
 $S = \overline{[(1 \cdot 1) \cdot (0 \cdot 0) \cdot (0 \cdot 0)]}$   
 $S = \overline{[(1) \cdot (0) \cdot (0)]}$   
 $S = \overline{(0)}$   
 $S = 1$

4)  $S = \overline{[(A \cdot B) + (\overline{[(A \cdot \bar{B})]} + 1C) \cdot (C + D)]}$   
 $S = \overline{[(1 \cdot (1 \cdot 1) + (1 \cdot (1 \cdot 0))] + 0) \cdot (1 + 1)}$   
 $S = \overline{[(1 \cdot 1) + (1 \cdot 0)] + 0} \cdot (1)$   
 $S = (0 + 1 + 0) \cdot (1)$   
 $S = 1 \cdot 1$   
 $S = 1$

$$5) S = |(A + B) + |(C \cdot D)$$

$$S = |(1+1) + |(1+0)$$

$$S = |(1) + |(1)$$

$$S = 0 + 0$$

$$S = 0$$

$$6) S = (A + B) \cdot |(A \cdot C) + |(D + C)$$

$$S = (1+1) \cdot |(1 \cdot 1) + |(1+0)$$

$$S = (1) \cdot |(1) + |(0+1)$$

$$S = (1) \cdot 0 + |(1)$$

$$S = (1) \cdot 0 + 0$$

$$S = 0 + 0$$

$$S = 0$$

$$7) S = (B \cdot C) + (B \cdot |C) + |(A \cdot B \cdot C)$$

$$S = (1 \cdot 1) + (1 \cdot 0) + |(1)$$

$$S = (1) + (0) + (0)$$

$$S = (1)$$

$$8) S = A + |(B \cdot |C) + (B \cdot C)$$

$$S = 1 + (0 \cdot 0) + (1 \cdot 1)$$

$$S = 1 + (0) + (1)$$

$$S = 1$$

$$9) S = |(A \cdot B) + (A \cdot C) \quad S = 1$$

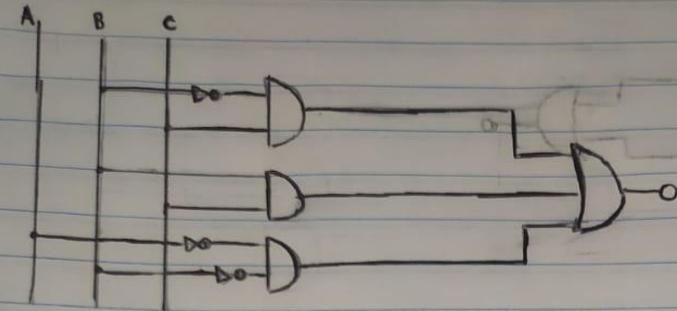
$$S = |(1 \cdot 1) + (1 \cdot 1)$$

$$S = (0 \cdot 0) + (1 \cdot 1)$$

$$S = (0) + (1)$$

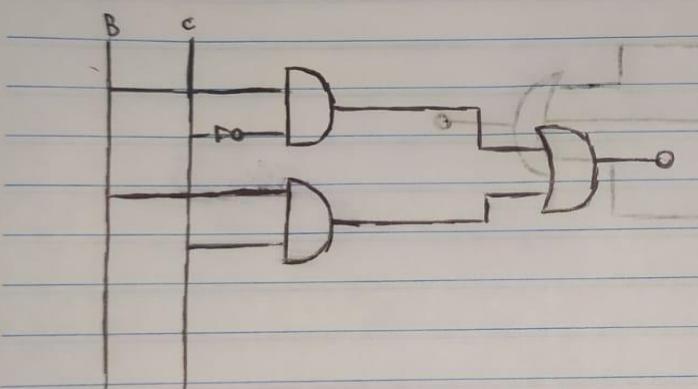
Circuitos lógicos obtidos de expressões

$$1) (\bar{B} \cdot c) + (B \cdot c) + (\bar{A} \cdot \bar{B})$$



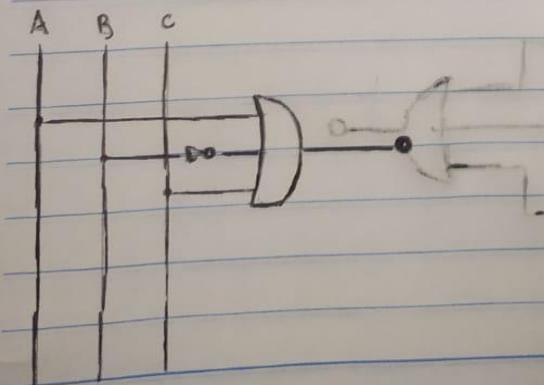
$$(\bar{c} \cdot A) + (\bar{c} \cdot B) + (\bar{c} \cdot \bar{A})$$

$$2) (\bar{B} \cdot \bar{c}) + (B \cdot c)$$

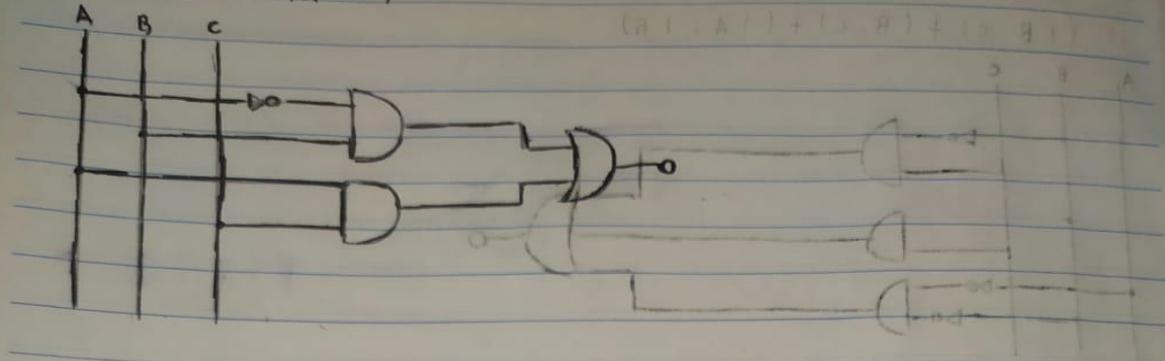


$$3) A + \bar{B} + c$$

$$(\bar{c} \cdot \bar{B} \cdot A) + (\bar{B} \cdot \bar{A} \cdot \bar{I}) + (\bar{c} \cdot \bar{B} \cdot \bar{I})$$

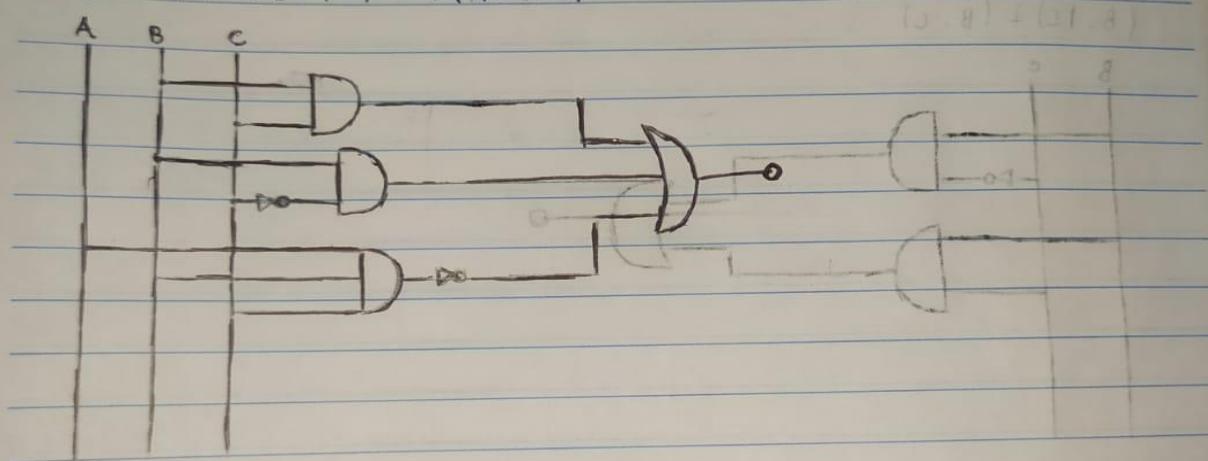


$$4) (\bar{1}A \cdot B) + (A \cdot c)$$



$$(A \cdot \bar{1}A) + (\bar{1}B \cdot B) + (\bar{1}C \cdot C)$$

$$5) (B \cdot C) + (B \cdot \bar{1}C) + \bar{1}(A \cdot B \cdot C)$$



$$(B \cdot C) + (B \cdot \bar{1}C)$$

$$6) (\bar{1}B \cdot C) + (\bar{1}A \cdot \bar{1}B) + (A \cdot B \cdot C)$$

$$\bar{1} + \bar{1}B + A$$

