







1)
$$3 = (\overline{A \cdot c}) + \underline{D} + \overline{A + B} + \overline{C \cdot (A + B)}$$

$$3 = A \cdot c + \underline{D} \cdot \overline{A + B} + c + \overline{A} \cdot \overline{B}$$

$$5 = A \cdot c + \overline{A \cdot 0} + B \cdot \underline{O} + c + \overline{B} \cdot \overline{A}$$

$$5 = \overline{B} \cdot \overline{A} + c + B \cdot \underline{O} + \overline{A} \cdot \underline{O}$$

$$1 \cdot \underline{\partial} ) \quad P = (A + (\overline{B \cdot c})) \cdot (\overline{O} + \overline{B \cdot E})$$

$$P = (A + \overline{B} + \overline{C}) \cdot (\overline{O} \cdot (\overline{B} + \overline{E}))$$

$$P = (A + \overline{B} + \overline{C}) \cdot (\overline{O} \cdot \overline{B} + \overline{O} \cdot \overline{E})$$

$$P = (\overline{A} \cdot \overline{B} \cdot A) + (\overline{O} \cdot \overline{B} \cdot \overline{B}) + (\overline{O} \cdot \overline{E} \cdot A) + (\overline{O} \cdot \overline{E} \cdot \overline{B}) + (\overline{O} \cdot \overline{E} \cdot \overline{B})$$

$$P = (\overline{O} \cdot \overline{B} \cdot A) + (\overline{O} \cdot \overline{B} \cdot \overline{E}) + (\overline{O} \cdot \overline{E} \cdot A) + (\overline{O} \cdot \overline{E} \cdot \overline{B}) + (\overline{O} \cdot \overline{E} \cdot \overline{E})$$

$$P = \overline{O} \cdot \overline{B} \cdot A + \overline{C} + \overline{C} + \overline{C} + \overline{C} + \overline{C} + \overline{C} + \overline{C}$$

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$$P = \overline{O} \cdot \overline{B} + \overline{O} \cdot \overline{C} \cdot (A + \overline{C})$$

$$P = \overline{O} \cdot (\overline{B} + \overline{C} \cdot (A + \overline{C}))$$

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2propriedades De Morgan

$$S=-((-B+-D)*(A+C)*(B+-C+D))$$