Seg Ter Qua Qui Sex Sáb Dom

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

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

$A + \bar{A}B + \bar{A}\bar{B}C + \bar{A}\bar{B}\bar{C}D$

$A + \bar{A}(B + \bar{B}C + \bar{B}\bar{C}D)$

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

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

$A + \bar{A}(B + D + C)$

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

$\boxed{A + B + D + C}$

② $A[(B + C(D + \bar{A}))]$

$A[(B + CD + \bar{A}C)]$

$\overline{A[B + CD + \bar{A}C]} = \overline{AB + ACD + \bar{A}} =$

$\overline{AB} \cdot \overline{ACD} \therefore (\bar{A} + \bar{B})(\bar{A} + \bar{C} + \bar{D}) =$

$\bar{A}\bar{A} + \bar{A}\bar{C} + \bar{A}\bar{D} + \bar{A}\bar{B} + \bar{B}\bar{C} + \bar{B}\bar{D}$

$\bar{A} + \bar{A}\bar{C} + \bar{A}\bar{D} + \bar{A}\bar{B} + \bar{B}\bar{C} + \bar{B}\bar{D}$

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

$\boxed{\bar{A} + \bar{B}\bar{C} + \bar{B}\bar{D}}$

③ $\overline{\bar{A}B\bar{C}} = \bar{\bar{A}} + \bar{B} + \bar{\bar{C}} \therefore \boxed{A + \bar{B} + C}$

④ $\bar{A}B\bar{C} + AB\bar{C} + B\bar{C}D$

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

⑤ $A\bar{B}\bar{C} + A\bar{B}C + ABC$

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

$A(\bar{B}(\bar{C} + C) + (BC))$

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

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