

4B.

$$Y = ABC\bar{C} + \bar{A}\bar{B}\bar{C} + \bar{A}B\bar{C} + A\bar{B}\bar{C}$$

a) MUX 2:1 = portas lógicas

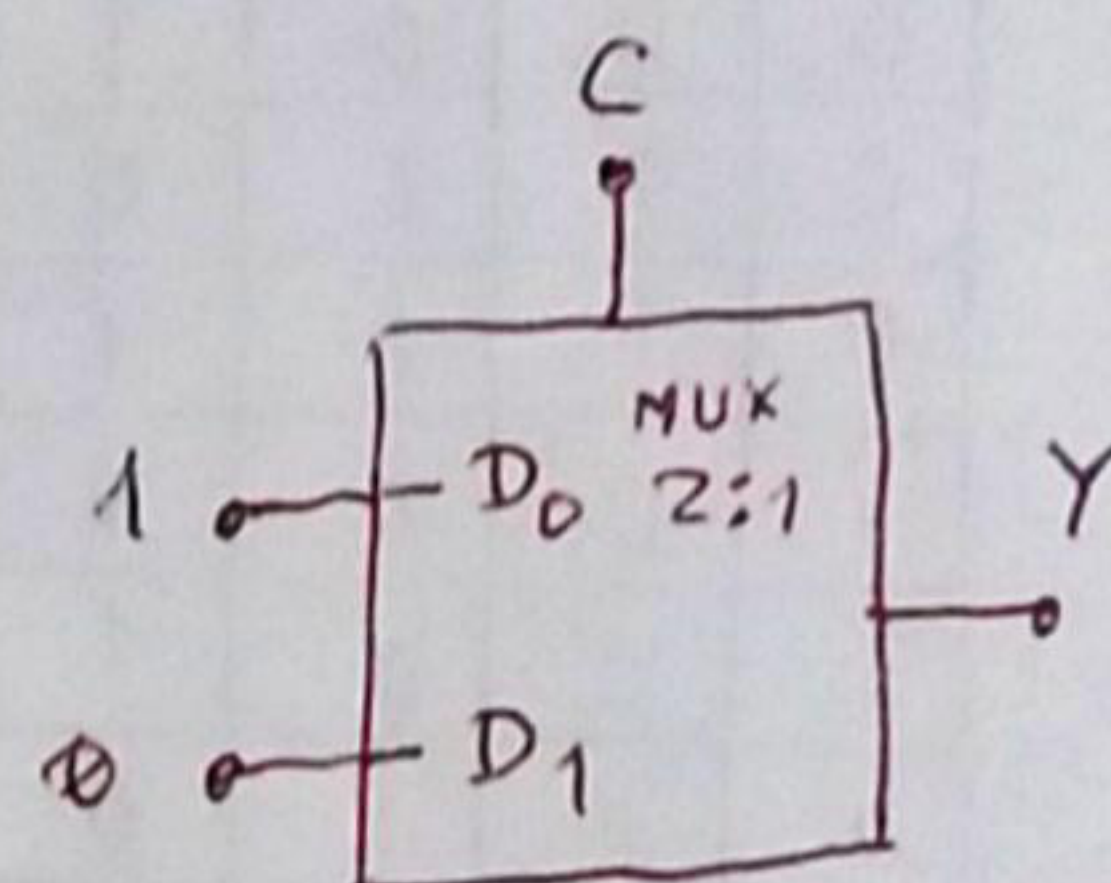
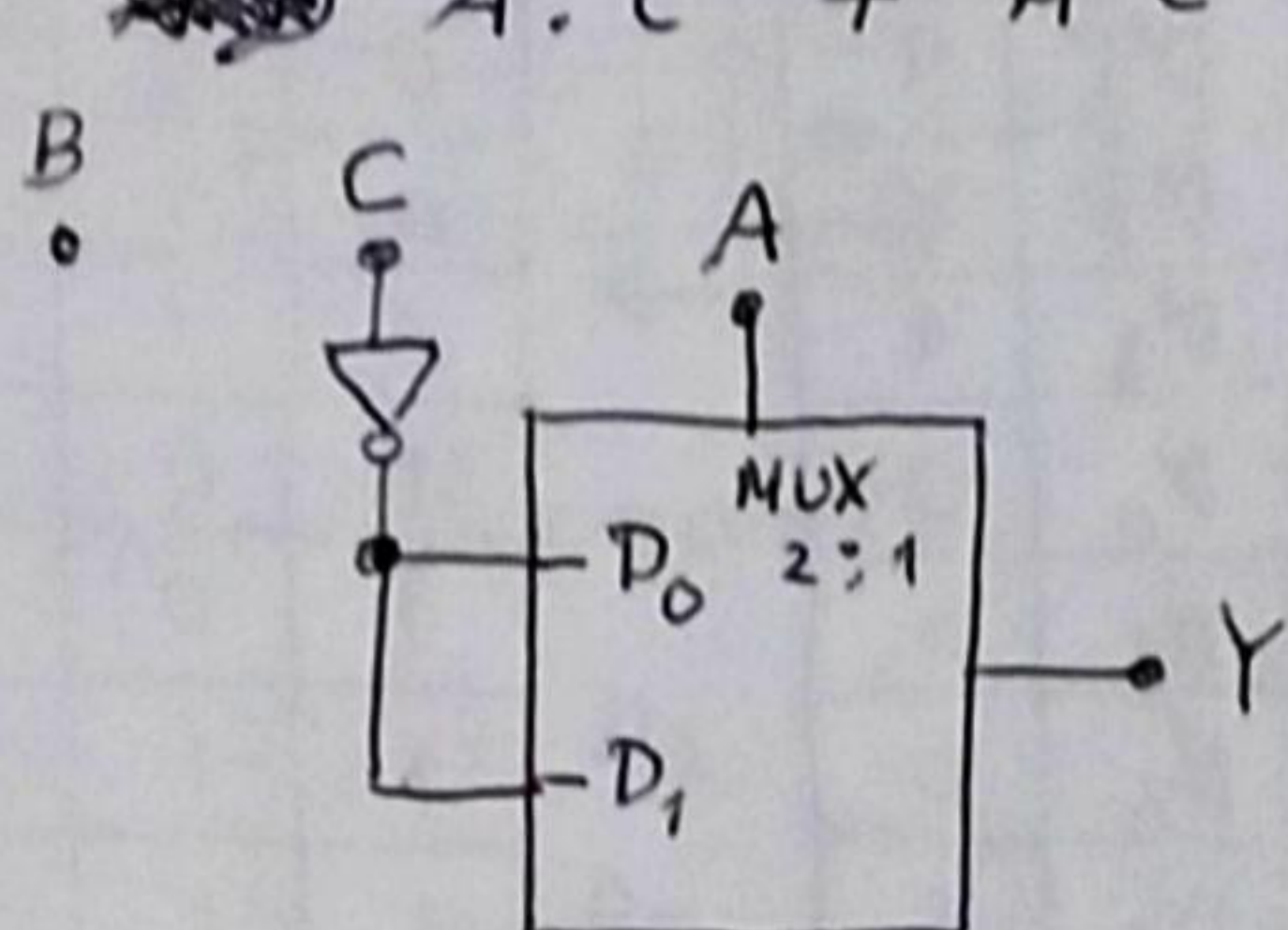
$$Y = A(B\bar{C}) + \bar{A}(\bar{B}\bar{C}) + \bar{A}(B\bar{C}) + A(\bar{B}\bar{C})$$

$$= \underbrace{A(B\bar{C} + \bar{B}\bar{C})}_{m_1 \quad D_1} + \underbrace{\bar{A}(\bar{B}\bar{C} + B\bar{C})}_{m_0 \quad D_0}$$

$$D_0 = \bar{B}\bar{C} + B\bar{C} = \bar{C}(\bar{B} + B) = \bar{C}$$

$$D_1 = B\bar{C} + \bar{B}\bar{C} = \bar{C}$$

$$Y = \cancel{A} \cdot \bar{C} + \bar{A} \bar{C} = \bar{C}$$



b) $Y = m_6 + m_0 + m_2 + m_4$

