**1)** Implement the **x** and **y** Boolean functions using the "4x1 MUX blocks" given below.

| a | b | c | | x | y |
|---|---|---|---|---|---|
| 0 | 0 | 0 | | 0 | 1 |
| 0 | 0 | 1 | | 1 | 1 |
| 0 | 1 | 0 | | 0 | 1 |
| 0 | 1 | 1 | | 0 | 0 |
| 1 | 0 | 0 | | 1 | 1 |
| 1 | 0 | 1 | | 0 | 1 |
| 1 | 1 | 0 | | 1 | 1 |
| 1 | 1 | 1 | | 1 | 0 |
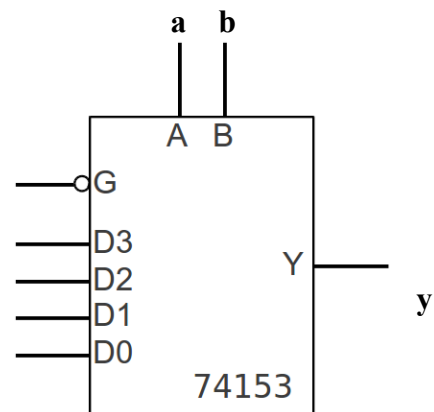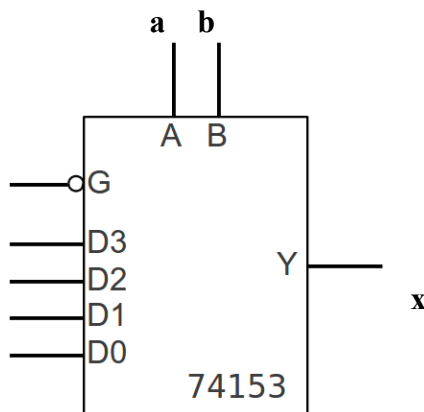


**Output function of the MUX:** $Y = G' ( A'B'D_0 + A'BD_1 + AB'D_2 + ABD_3)$

**2)** Implement the **x** Boolean function given in (1) by using the OR (VEYA) Gate and active-1 3x8 decoder (aktif-1 3x8 kod çözücü) block given below.