# ✱CSE 234 Lab-2 Yesim Yalçın - 2001040004034

✱ 7 kişi
✱ hayır diyenlerin sayısı sayılıyor.
✱ 2+ hayır → kesinlikle iptal
✱ Show the result in 2 bits

→ 00 → 2+
→ 01 → 1
→ 10 → 2
→ 11 → 0

} No votes

✱ Take inputs as binary number.

## ✱Truth Table

| (a) $i_3$ | (b) $i_2$ | (c) $i_1$ | (d) $i_0$ | $d_1$ | $d_0$ | output |
|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| 0 | 0 | 1 | 1 | 0 | 0 | 3 |
| 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| 0 | 1 | 0 | 1 | 0 | 0 | 5 |
| 0 | 1 | 1 | 0 | 0 | 0 | 6 |
| 0 | 1 | 1 | 1 | 0 | 0 | 7 |
| 1 | 0 | 0 | 0 | 0 | 0 | x |
| 1 | 0 | 0 | 1 | 0 | 0 | x |
| 1 | 0 | 1 | 0 | 0 | 0 | x |
| 1 | 0 | 1 | 1 | 0 | 0 | x |
| 1 | 1 | 0 | 0 | 0 | 0 | x |
| 1 | 1 | 0 | 1 | 0 | 0 | x |
| 1 | 1 | 1 | 0 | 0 | 0 | x |
| 1 | 1 | 1 | 1 | 0 | 0 | x |

* The expression for $d_1$:

$F(d_1) = a'b'c'd' + a'b'cd'$

* The expression for $d_2$:

$F(d_2) = a'b'c'd' + a'b'c'd$

* Map for $d_1$:

| $ab$ \ $cd$ | 00 | 01 | 11 | 10 |
|---|---|---|---|---|
| 00 | 1 | 0 | 0 | 1 |
| 01 | 0 | 0 | 0 | 0 |
| 11 | x | x | x | x |
| 10 | x | x | x | x |

$F(d_1) = a'b'd'$

* Map for $d_2$:

| $ab$ \ $cd$ | 00 | 01 | 11 | 10 |
|---|---|---|---|---|
| 00 | 1 | 1 | 0 | 0 |
| 01 | 0 | 0 | 0 | 0 |
| 11 | x | x | x | x |
| 10 | x | x | x | x |

$F(d_2) = a'b'c'$