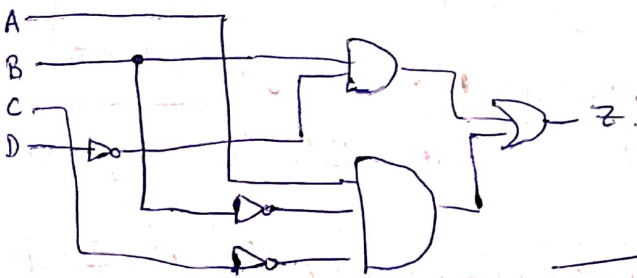


FUNDC. TASK 1: Ex. 1 $\Sigma m(4, 6, 8, 9, 12, 14)$

AB \ CD	00	01	11	10
00	0	1	3	2
01	4	1	5	6
11	12	13	15	14
10	8	9	11	10

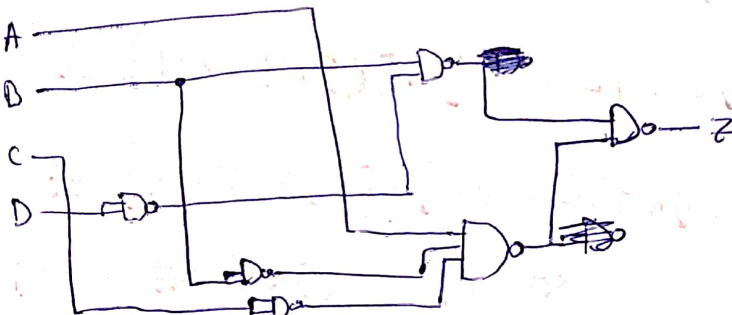
$B\bar{D} + A\bar{B}\bar{C}$

(a)



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

(b)



Task 1. Exercise 2.

(a)

A	B	C	Z
0	0	0	1
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	0

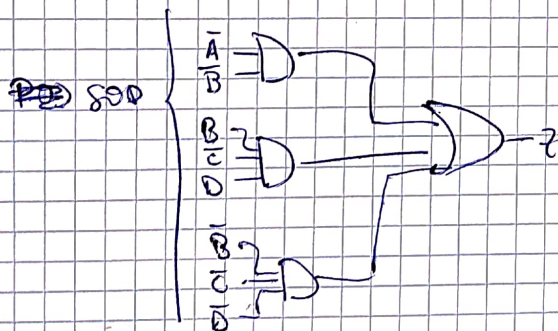
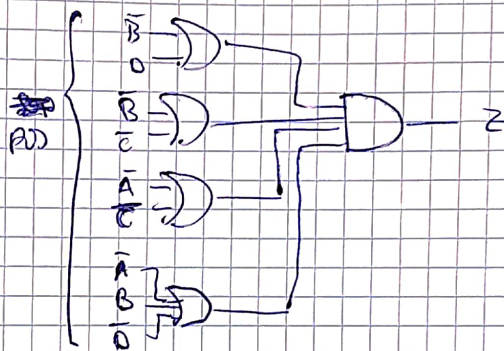
A	B	C	D	Z
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	0
0	1	1	1	0
1	0	0	0	1
1	0	0	1	0
1	0	1	0	0
1	0	1	1	0
1	1	0	0	0
1	1	0	1	1
1	1	1	0	0
1	1	1	1	0

$$Z = \overline{A+B} + B\overline{C}D + A\overline{B}\overline{C}\overline{D} = \overline{A}\overline{B} + B\overline{C}D + A\overline{B}\overline{C}\overline{D}$$

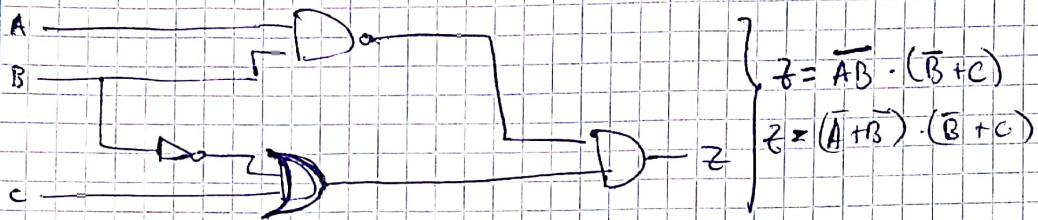
(b)

AB \ CD	00	01	11	10
00	1	1	1	1
01	0	1	0	0
11	0	1	0	0
10	1	0	0	0

PO: $Z = \overline{A}\overline{B} + B\overline{C}D + \overline{B}\overline{C}\overline{D}$
 SOP: $Z = (\overline{B}+D)(\overline{B}+\overline{C})(\overline{A}+\overline{C})(\overline{A}+D+\overline{D})$



TASK 1. Exercise 3.



$$\begin{cases} z = \overline{AB} \cdot (\overline{B} + C) \\ z = (\overline{A} + \overline{B}) \cdot (\overline{B} + C) \end{cases}$$

~~$$\overline{AB} \cdot (\overline{B} + C) = \overline{AB} + \overline{AB}C$$~~

~~$$(\overline{A} + \overline{B}) \cdot (\overline{B} + C) = \overline{A}\overline{B} + \overline{A}C + \overline{B}^2 + \overline{B}C$$~~

$$z = (\overline{A} + \overline{B}) + (\overline{B} + C)$$

