CISC 221 Assignment 4

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March 15, 2024

1. (a)
$$Y = \overline{AB} + A\overline{B} + AB$$

(b)
$$Y = \overline{ABC} + ABC$$

(c)
$$Y = \overline{ABC} + \overline{A}B\overline{C} + A\overline{BC} + A\overline{BC} + ABC$$

(d)
$$Y = \overline{ABCD} + \overline{ABCD} + \overline{ABCD} + \overline{ABCD} + \overline{ABCD} + A\overline{BCD} + A\overline{BCD} + ABC\overline{D}$$

(e)
$$Y = \overline{ABCD} + \overline{AB}CD + \overline{AB}\overline{C}D + \overline{ABCD} + A\overline{BCD} + A\overline{BCD} + AB\overline{CD} + AB\overline$$

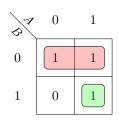
2. (a)
$$\sum (0,2,3)$$

(b)
$$\sum (0,7)$$

(c)
$$\sum (0, 2, 4, 5, 7)$$

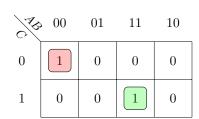
(d)
$$\sum (0, 1, 2, 3, 8, 10, 14)$$

(e)
$$\sum (0, 3, 5, 6, 9, 10, 12, 15)$$

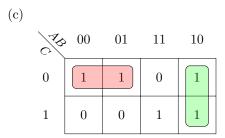


$$Y = \overline{B} + AB$$

(b)



$$Y = \overline{ABC} + ABC$$



$$Y = \overline{AC} + A\overline{B} + ABC$$

(d)

CAR	00	01	11	10
00	1	0	0	1
01	1	0	0	0
11	1	0	0	0
10	1	0	1	1

$$Y = \overline{AB} + AC\overline{D} + A\overline{BCD}$$

(e)

Colo	00	01	11	10
00	1	0	1	0
01	0	1	0	1
11	1	0	1	0
10	0	1	0	1

$$Y = \overline{ABCD} + \overline{AB}CD + \overline{A}B\overline{C}D + \overline{A}BC\overline{D} + A\overline{B}CD + A\overline{B}C\overline{D} + AB\overline{C}D + ABCD$$