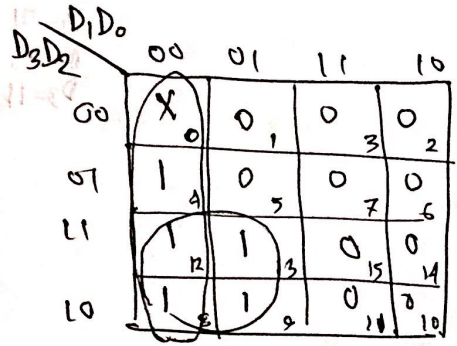
Roll: 1805098

Problem 3: $D_1 > D_3 > D_0 > D_2$

$D_0 \rightarrow 00$
$D_1 \rightarrow 01$
$D_2 \rightarrow 10$
$D_3 \rightarrow 11$

D_3	D_2	D_1	D_0	A_1	A_0
0	0	0	0	X	X
0	0	0	1	0	0
0	0	1	0	0	1
0	0	1	1	0	1
0	1	0	0	1	0
0	1	0	1	0	0 ←
0	1	1	0	0	1
0	1	1	1	0	1
1	0	0	0	1	1
1	0	0	1	1	1
1	0	1	0	0	1
1	0	1	1	0	1
1	1	0	0	1	1
1	1	0	1	1	1
1	1	1	0	0	1
1	1	1	1	0	1

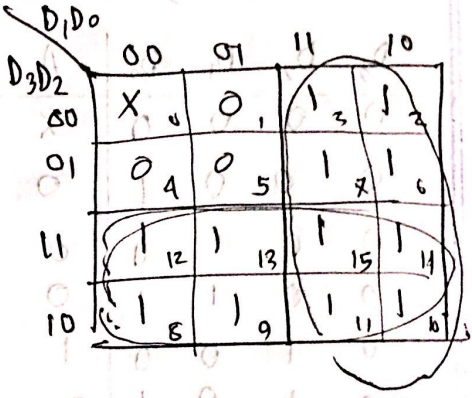
For A_1



$\therefore A = \overline{D_1}\,\overline{D_0} + \overline{D_1} D_3$

$= \overline{D_1}\,(\overline{D_0} + D_3)$

For A_0:



$\therefore A_0 = D_3 + D_1$