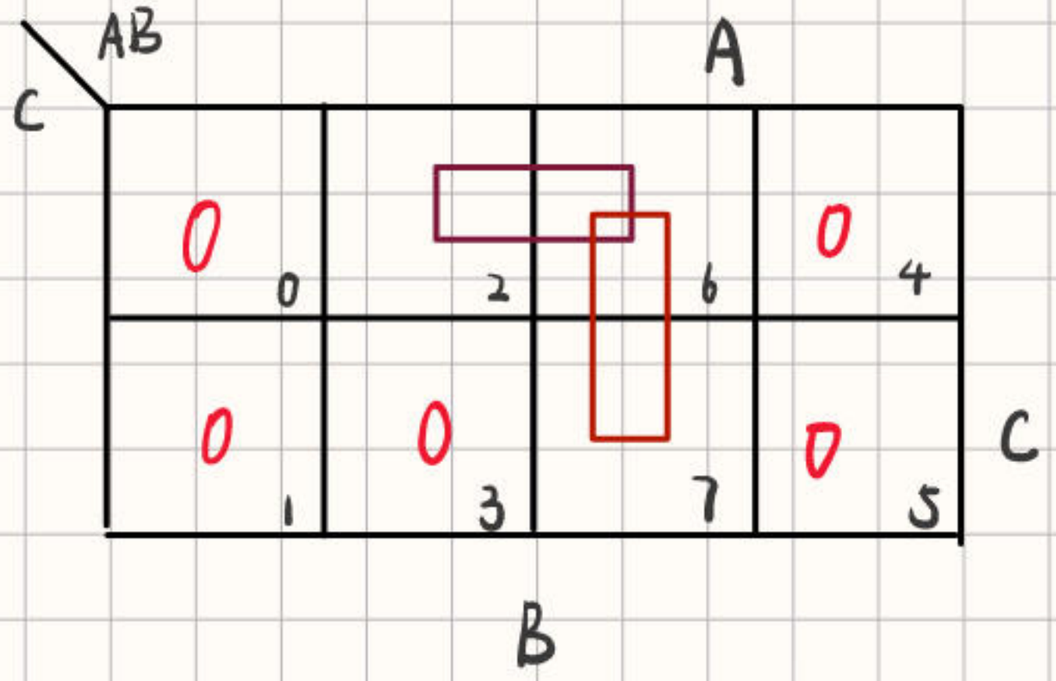
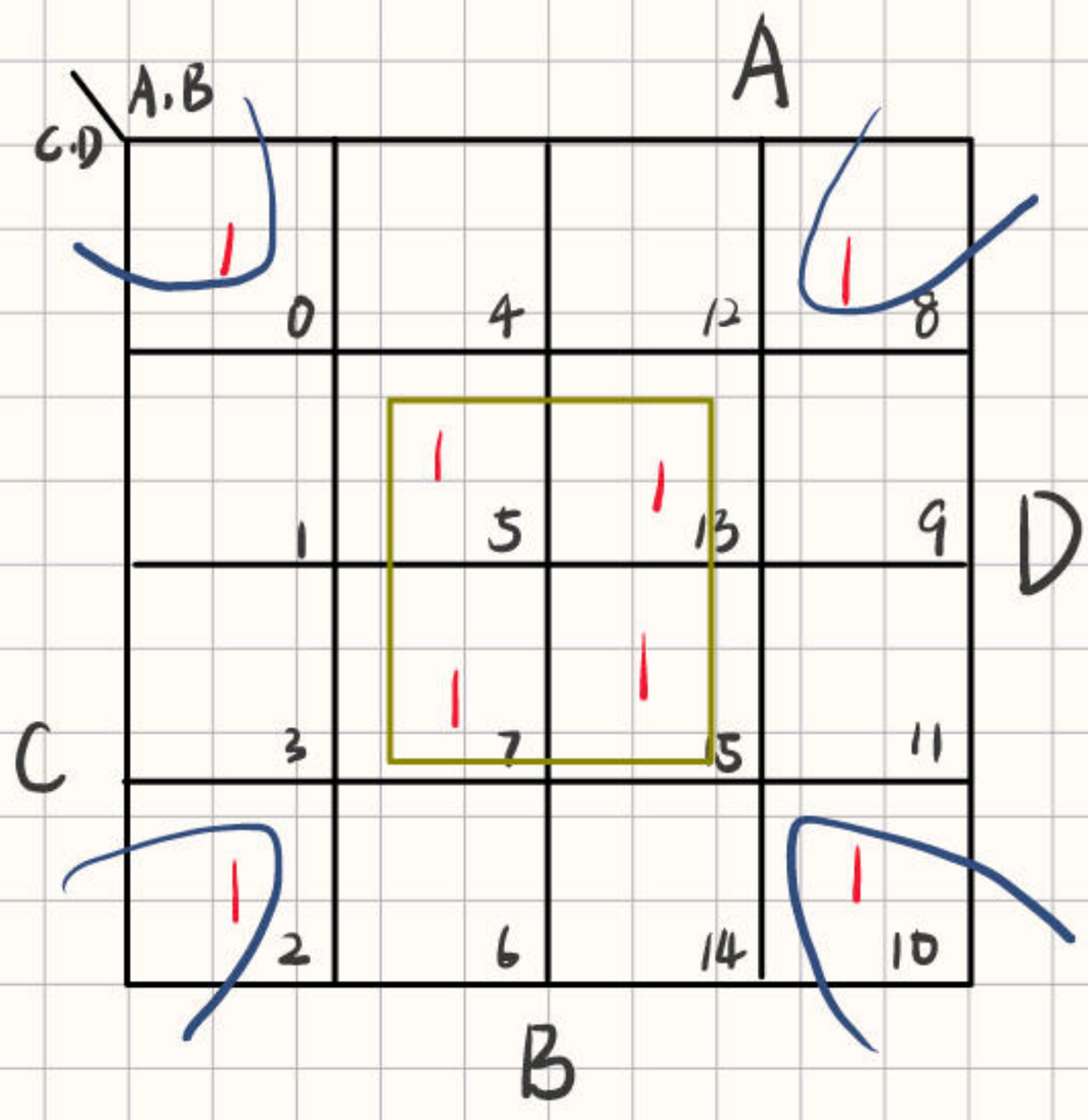
(3)



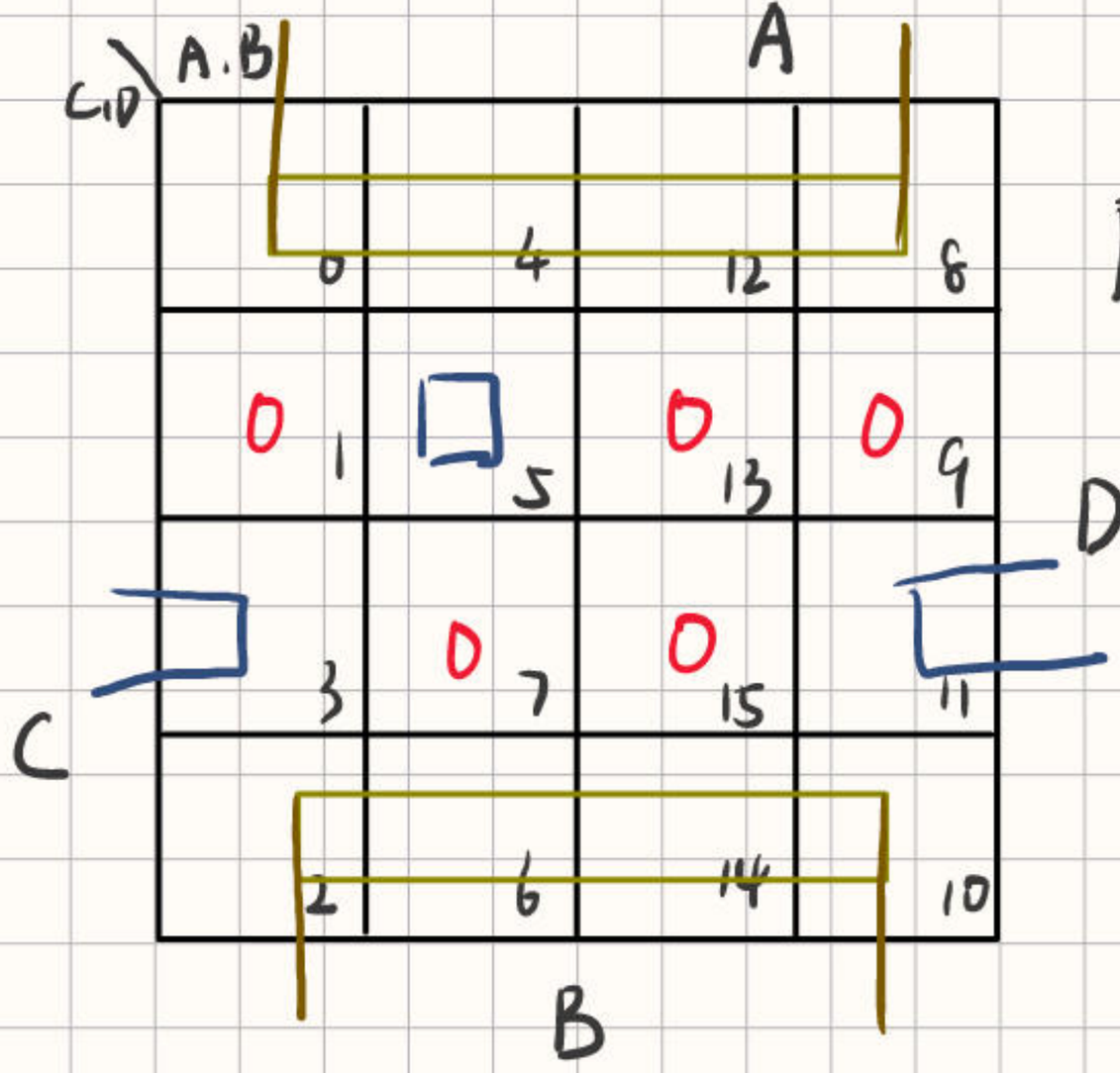
$$F = \prod M^3(0,1,3,4,5)$$
$$= B\bar{C} + ABC$$

(4)



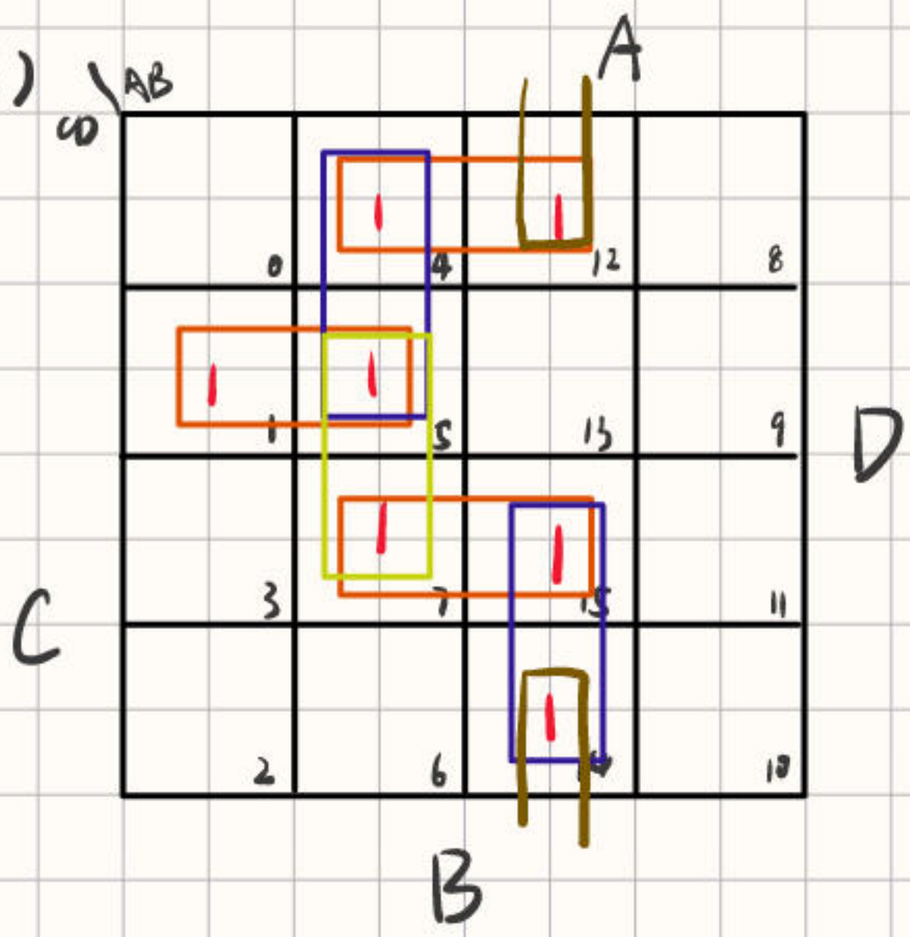
$$F = \sum m^4(0,2,5,7,8,10,13,15)$$
$$= BD + \bar{B}\bar{D}$$

(5)



$$F = \prod M^4(1,7,9,13,15)$$
$$= \bar{D} + \bar{B}CD + \bar{A}B\bar{C}D$$

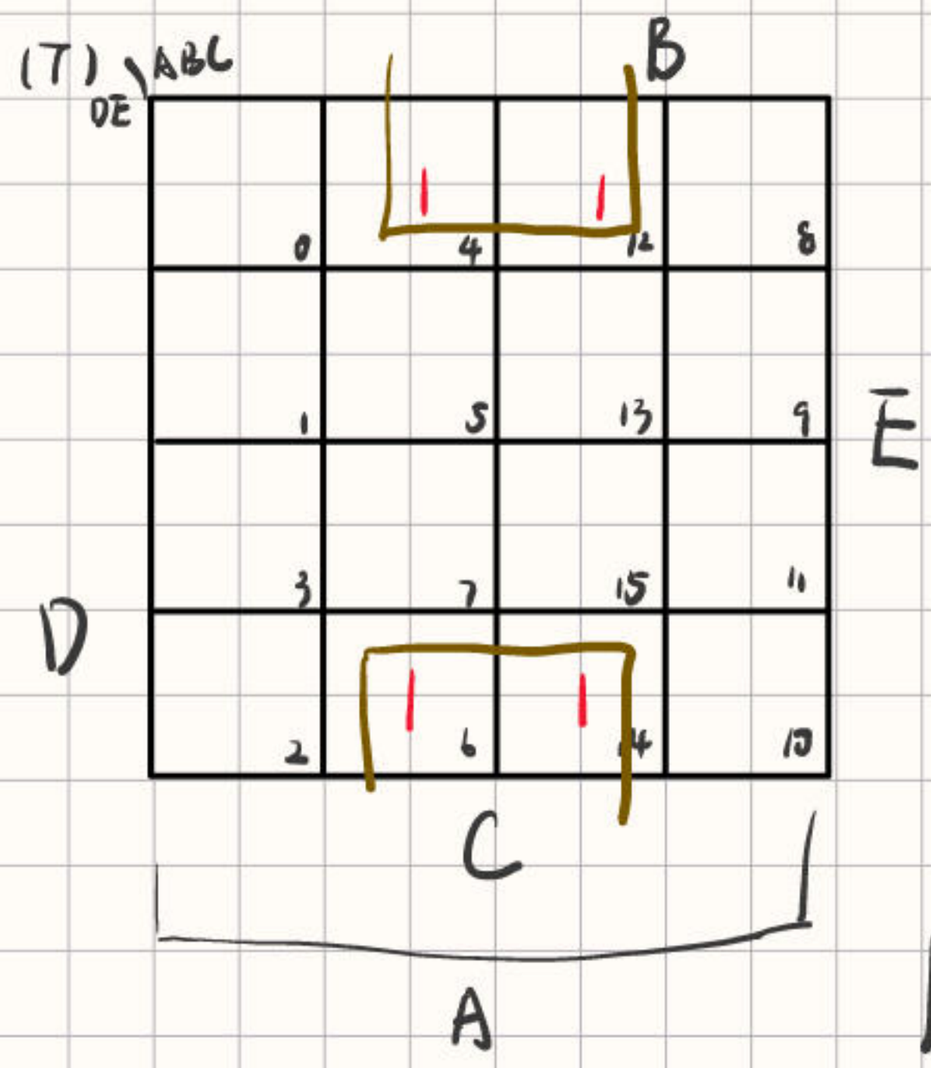
(6)



$$F = \sum m^4(1,4,5,7,12,14,15)$$

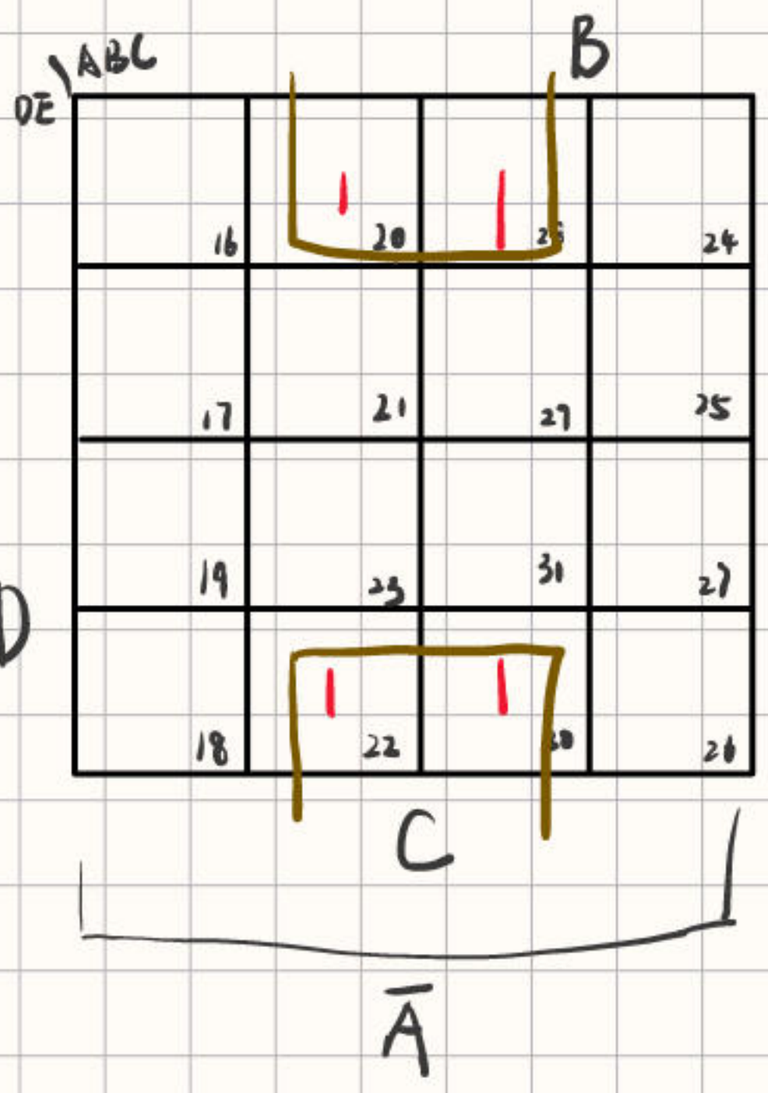
$$= \bar{A}\bar{C}D + B\bar{C}\bar{D} + BCD + ABC\bar{D}$$

(7)

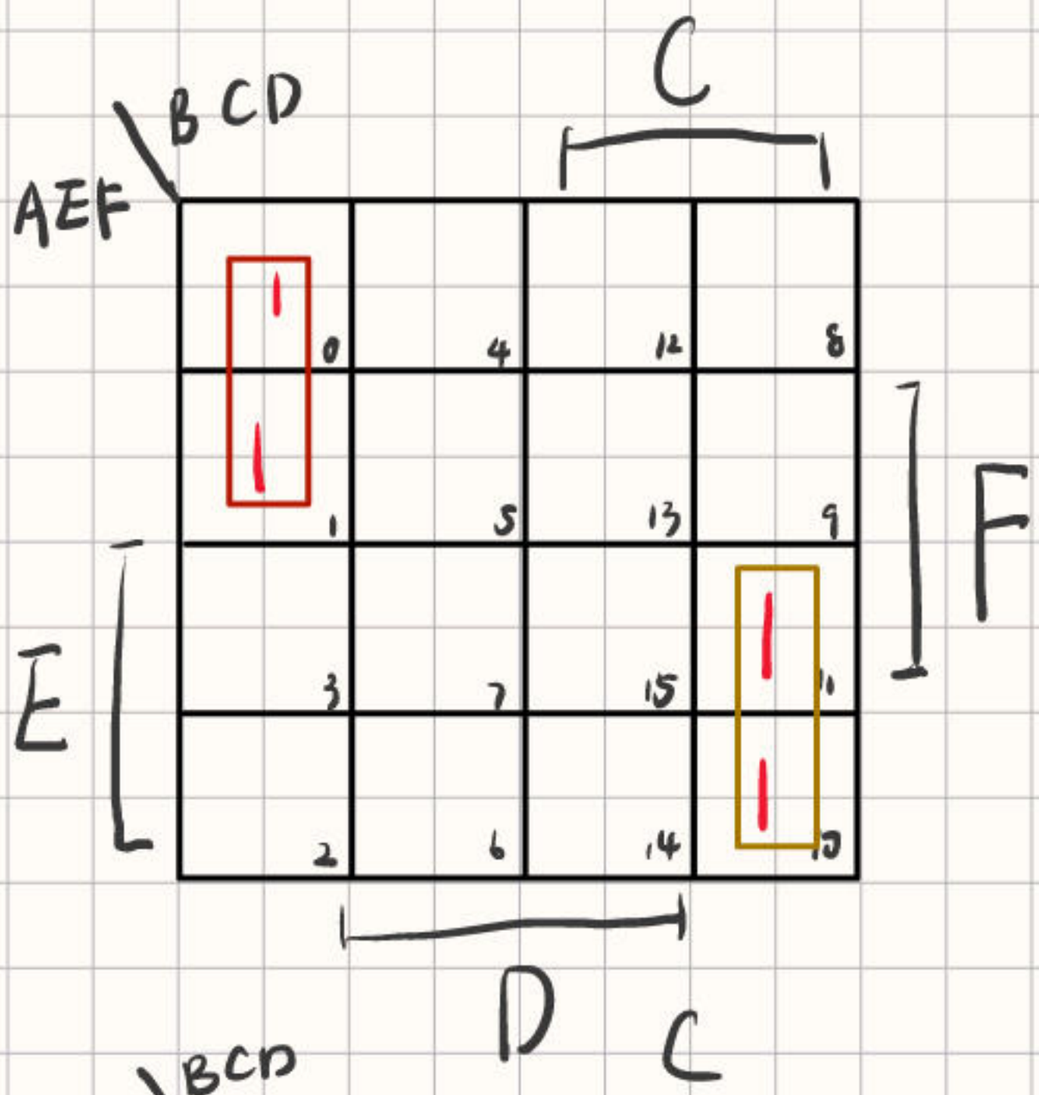


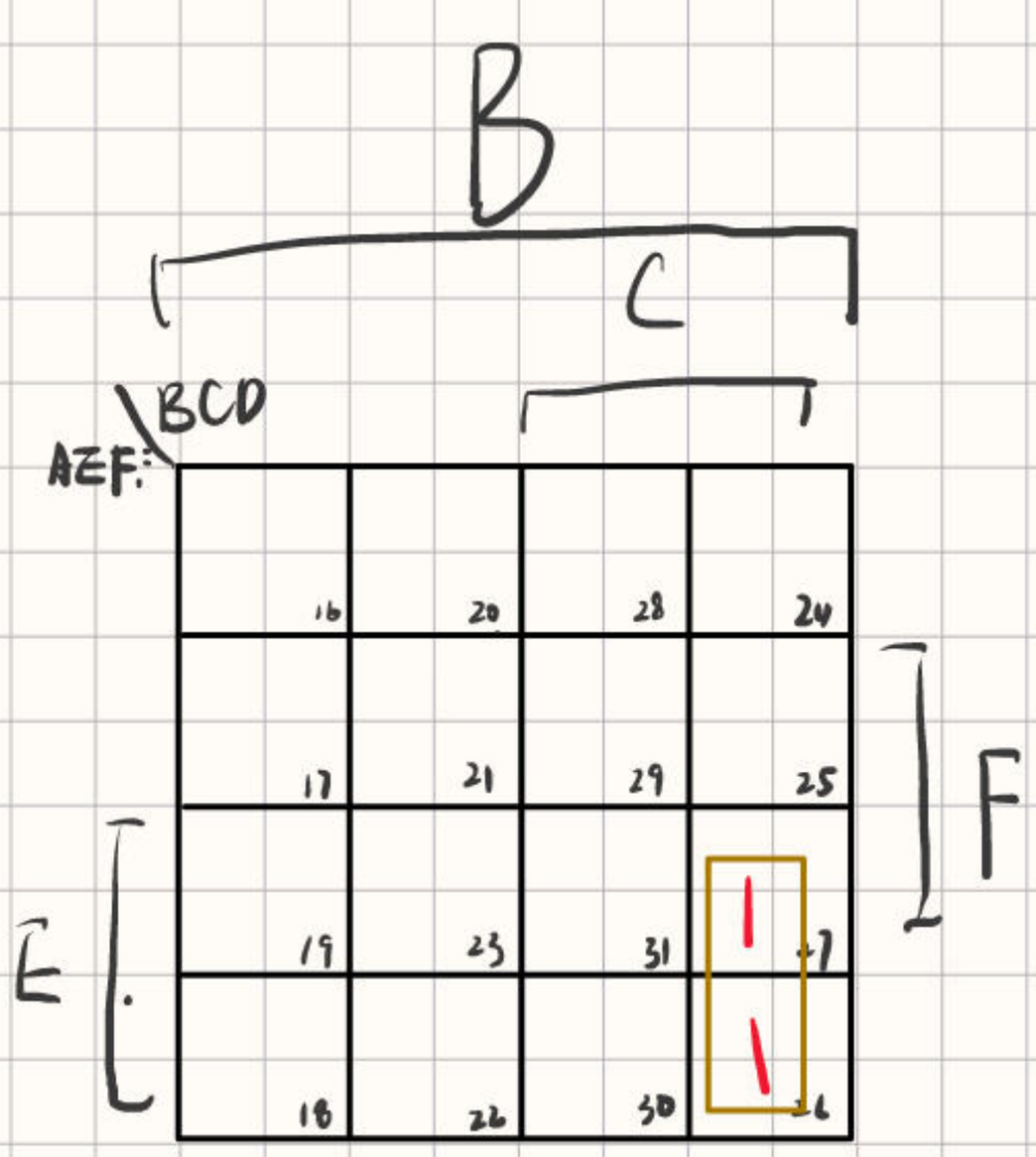
$$F = \sum m^5(4,6,12,14,20,22,28,30)$$

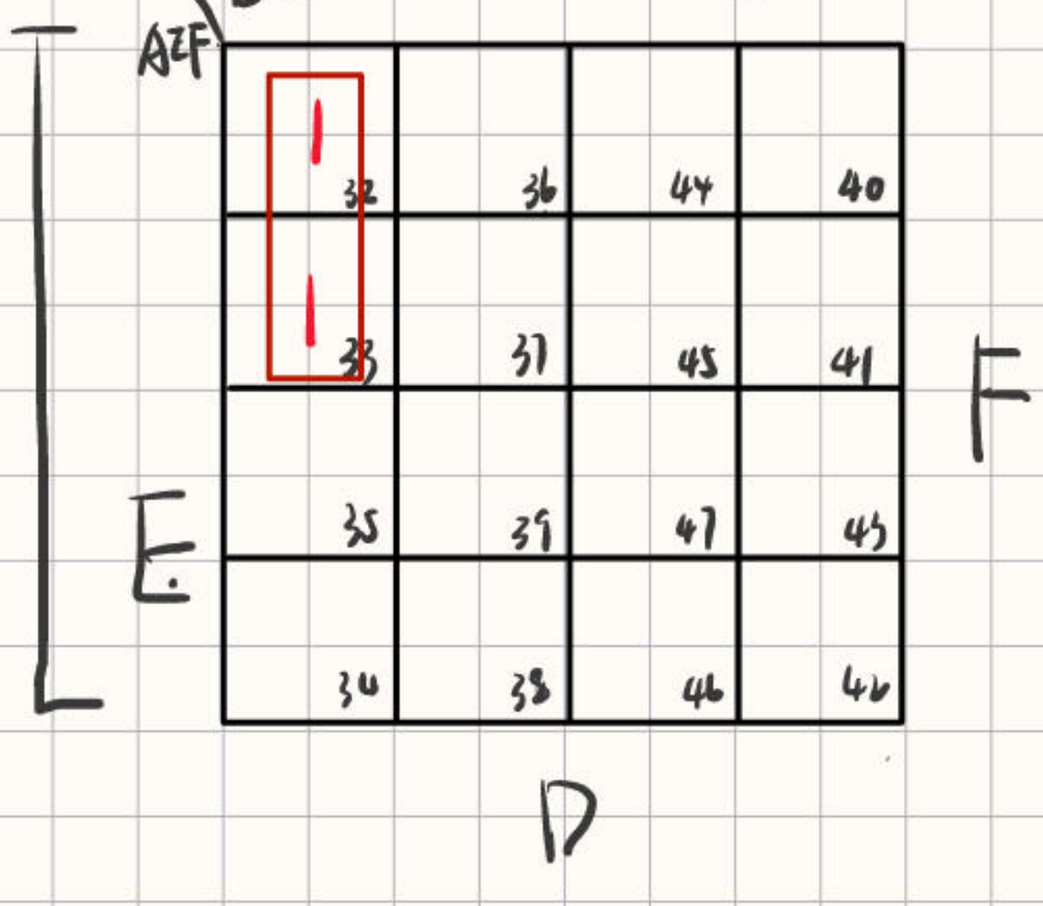
$$= CD\bar{E}$$

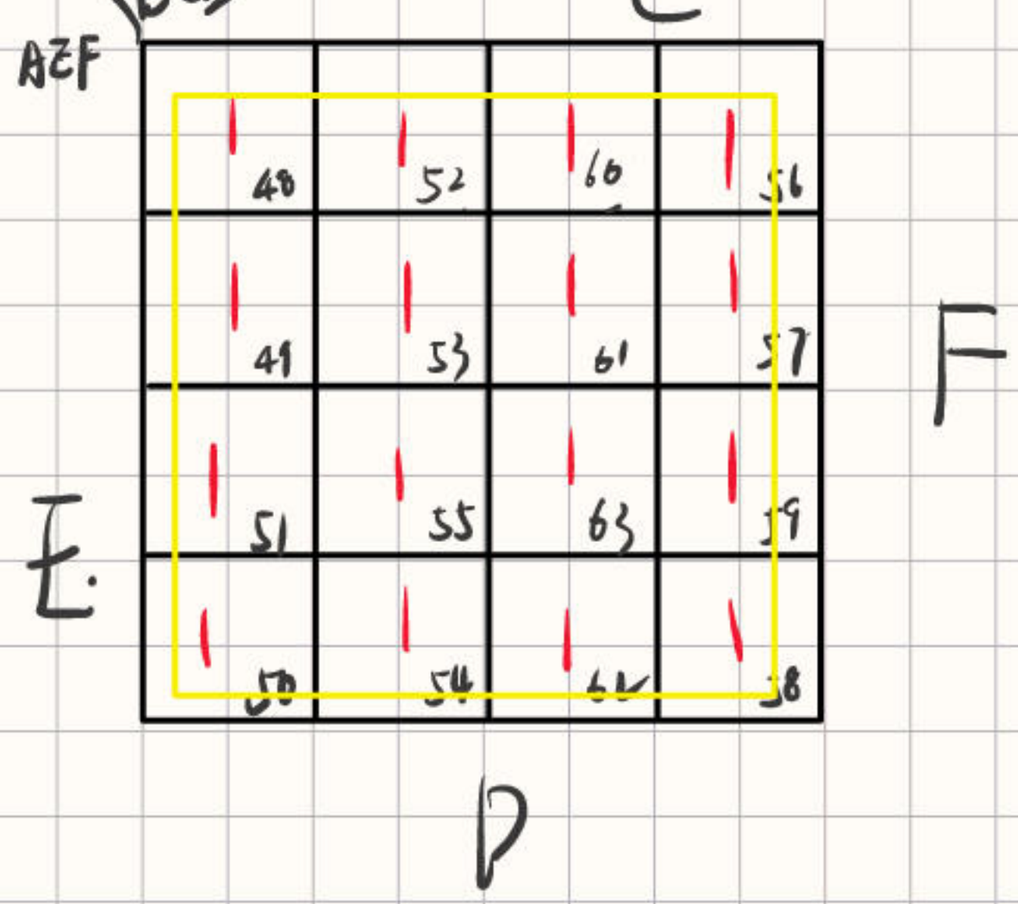


8.







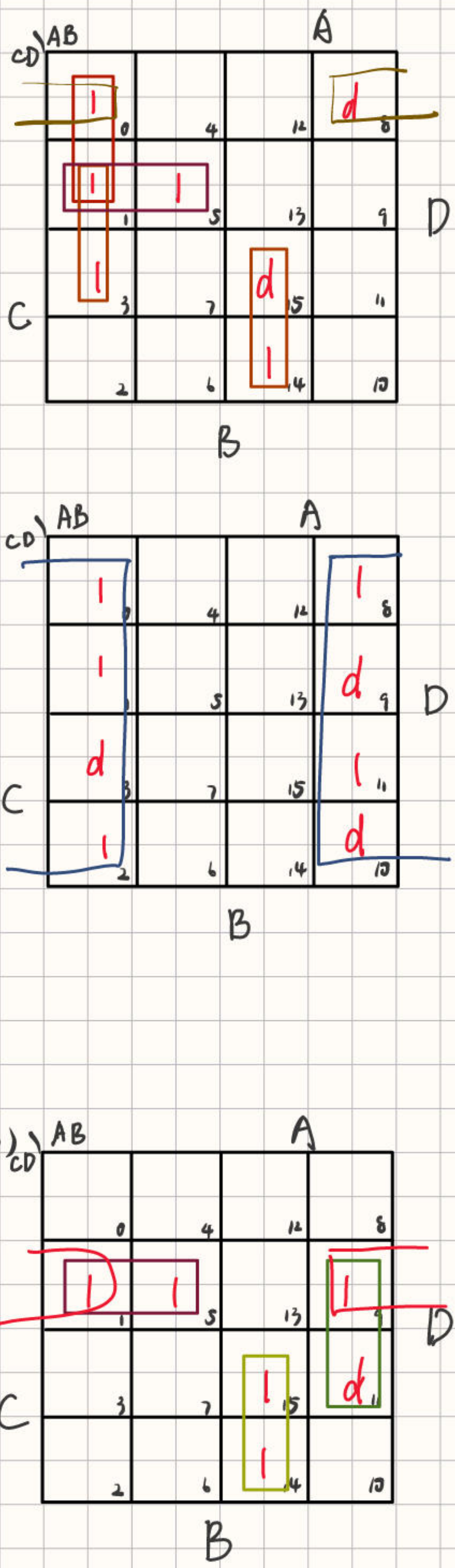


$$\bar{F} = \sum m^b (0, 1, 10, 11, 26, 27, 32, 33, 48 \sim 63)$$

$$= AB + \bar{B}\bar{C}\bar{D}\bar{E} + \bar{A}C\bar{D}E$$

2.20.

(1) $F=\sum m^4(0,1,3,5,14)+d(8,15)=\bar{A}\bar{B}D+\bar{A}\bar{B}C+\bar{A}B\bar{C}D+ABC$



(2)

$F=\sum m^4(0,1,2,8,11)+d(3,9,15)$

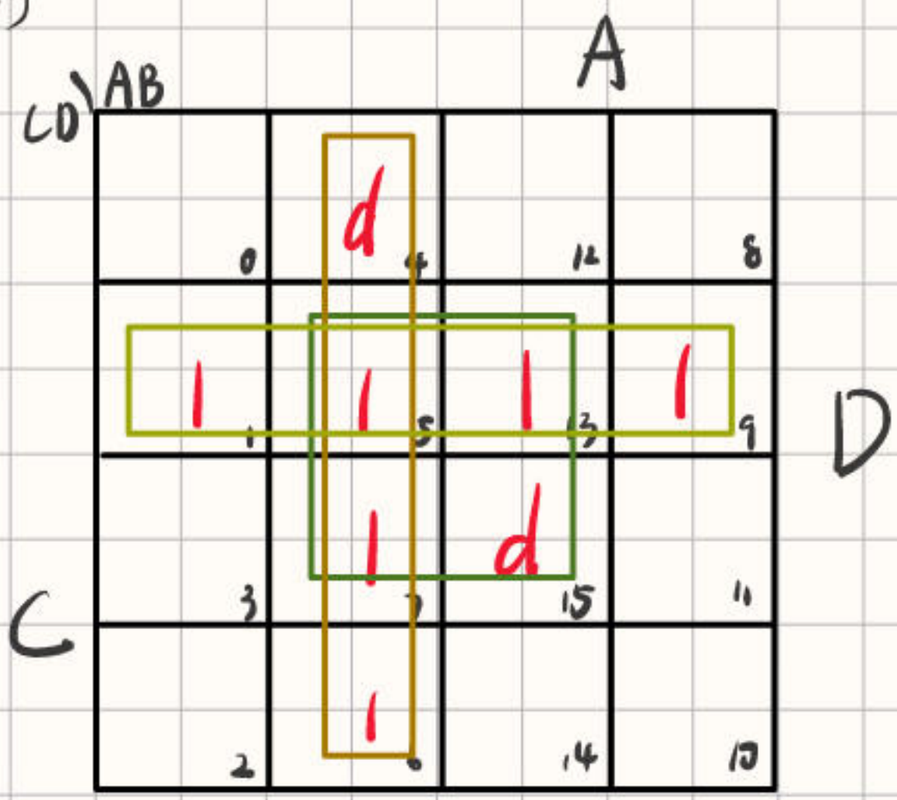
$=\bar{B}$

(3)

$F=\sum m^4(1,5,9,14,15)+d(11)$

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

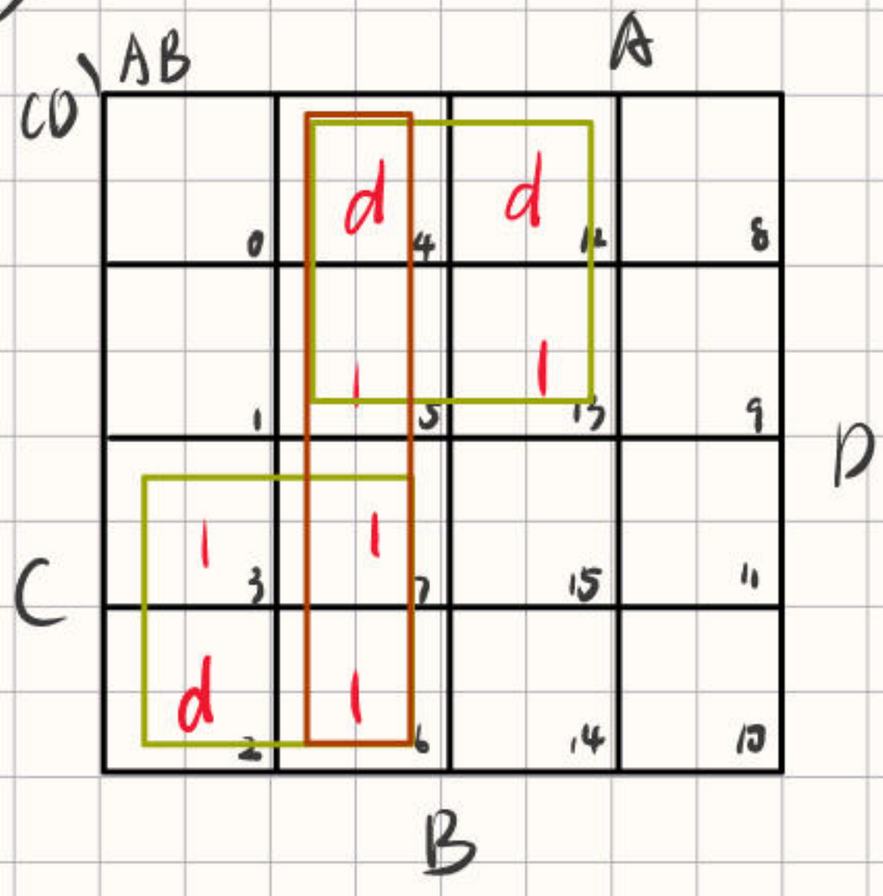
(4)



$$F = \sum m^4(1,5,6,7,9,13) + d(4,15)$$

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

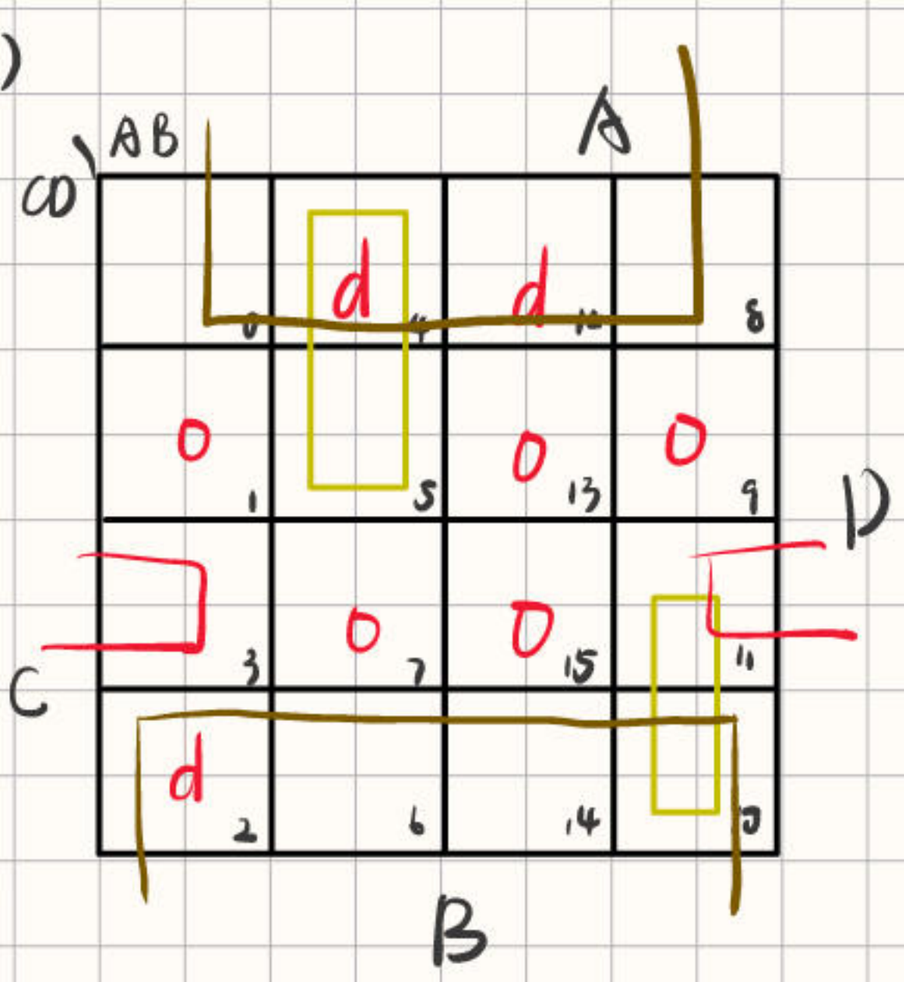
(5)



$$F = \sum m^4(3,5,6,7,13) + d(1,2,4,12,15)$$

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

(6)

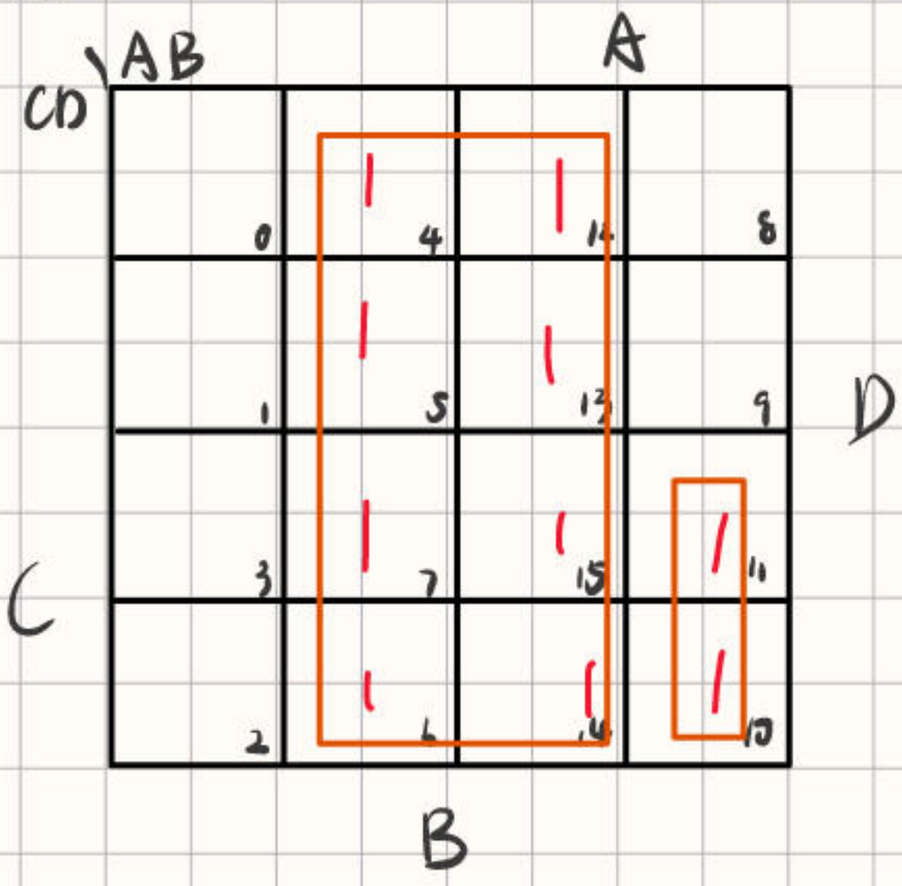


$$F = \prod M^4(1,7,9,13,15) + d(2,4,12)$$

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

2·21

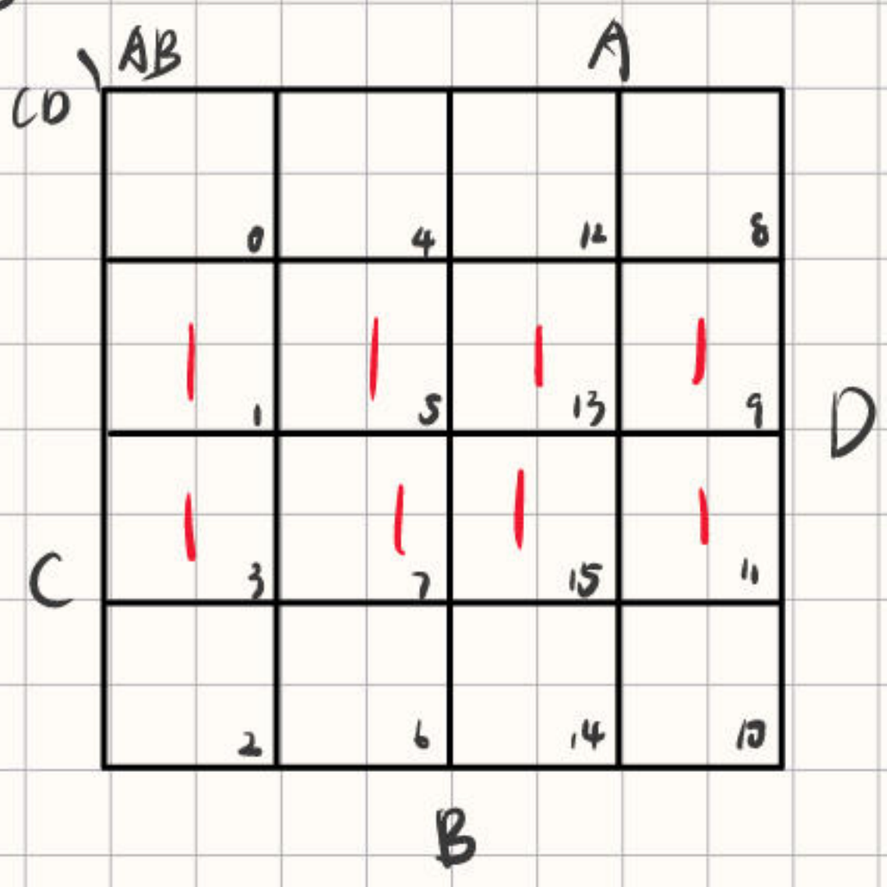
(1)



$F = \bar{A}B + AC + AB\bar{C}$

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

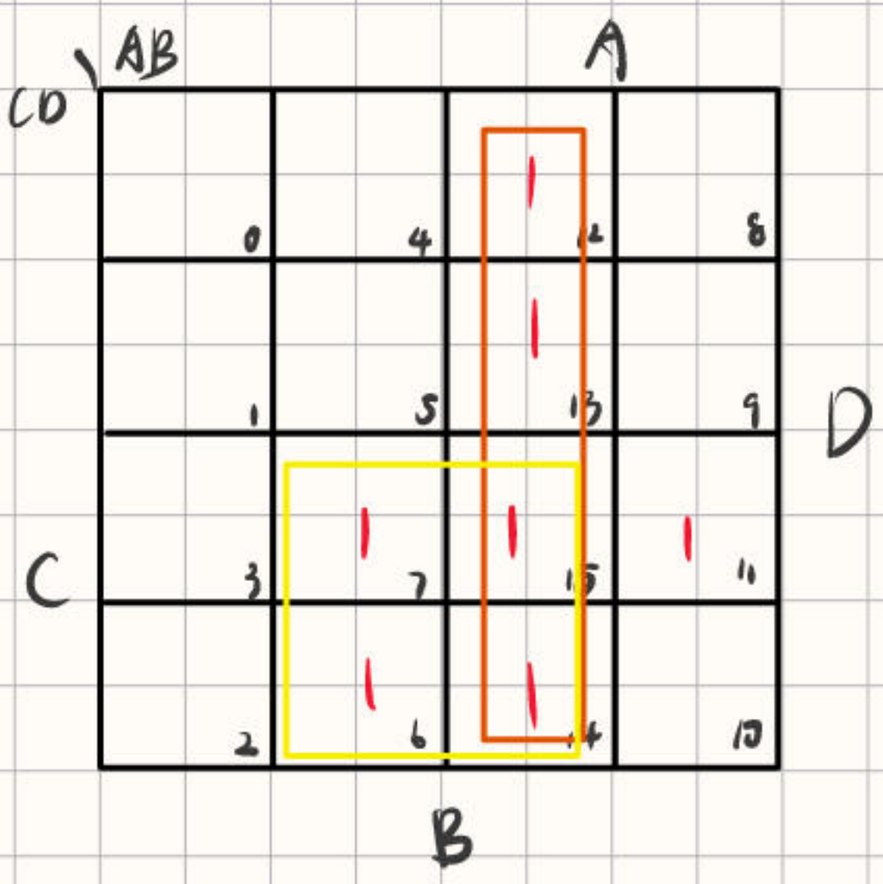
(2)



$F = \bar{A}\bar{C}D + \bar{B}CD + A\bar{C}D + BCD$

$= D$

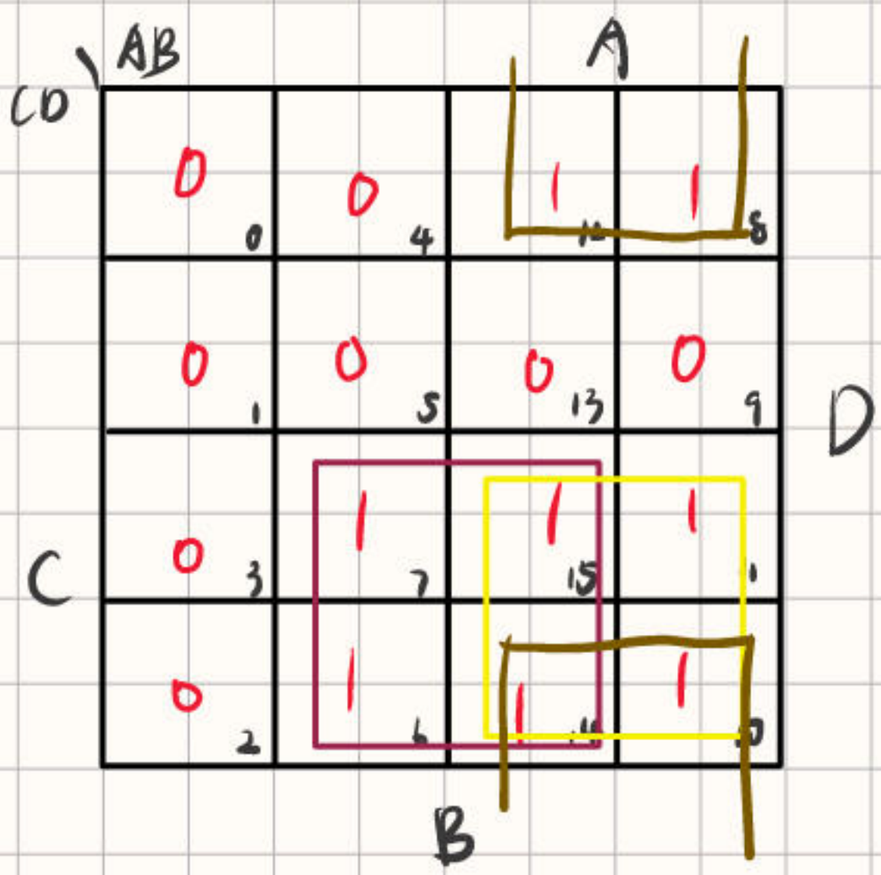
(3)



$F = AB\bar{C} + ABCD + BC$

$= BC + AB\bar{C} + A\bar{B}CD$

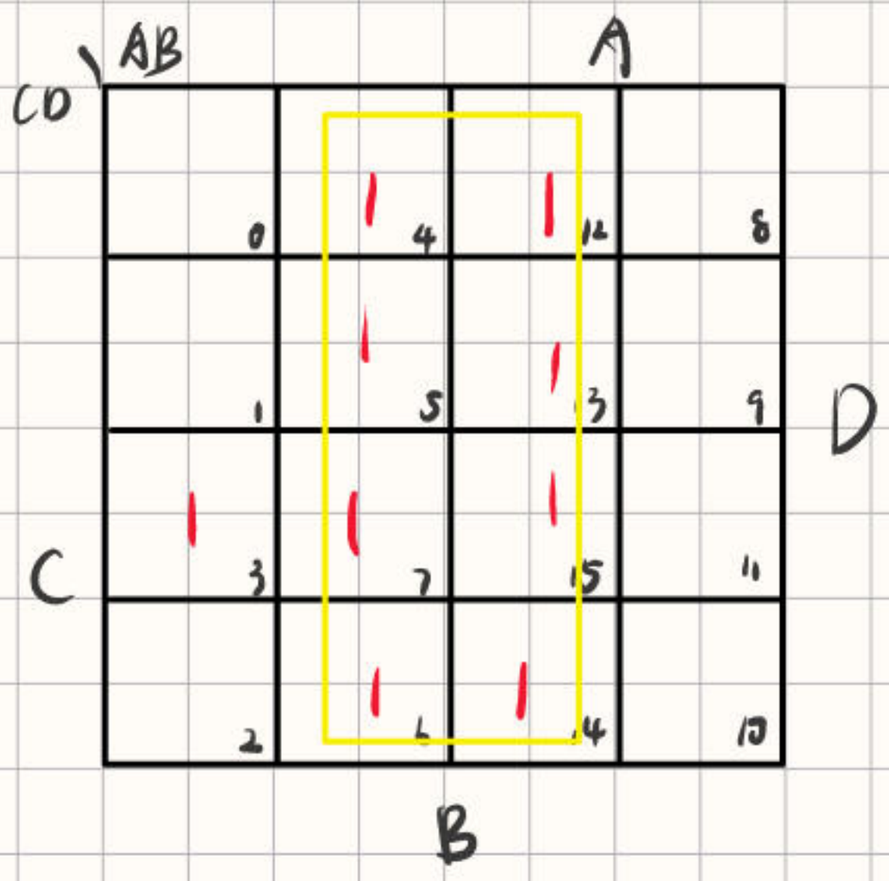
(4)



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

$$=A\bar{D}+ACD+\bar{A}BC$$

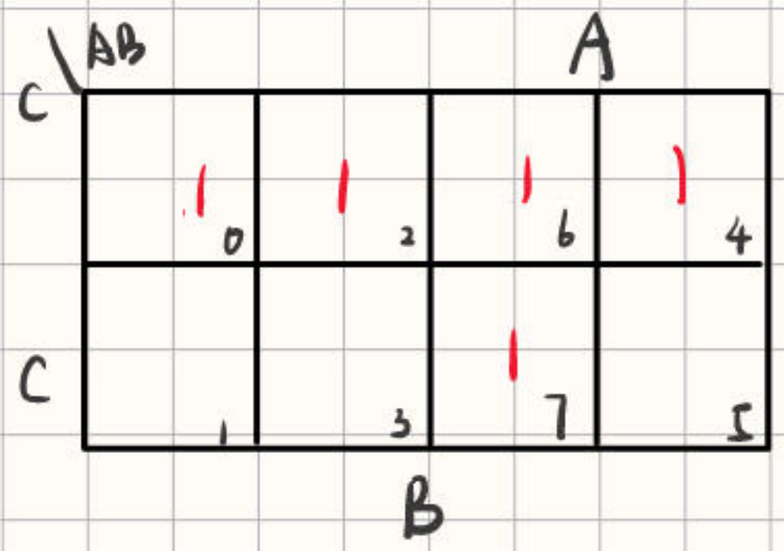
(5)



$$F=A\bar{B}\bar{C}\bar{D}+\bar{A}B\bar{C}+AB\bar{D}+\bar{A}CD+B\bar{C}\bar{D}$$

$$=B+\bar{A}\bar{B}CD$$

(6)



$$F=\overline{(\bar{A}+\bar{B})(AB+C)}$$

$$=AB+(\bar{A}+\bar{B})\bar{C}$$

$$=AB+\bar{A}\bar{C}+\bar{B}\bar{C}$$

$$=\bar{C}+ABC.$$