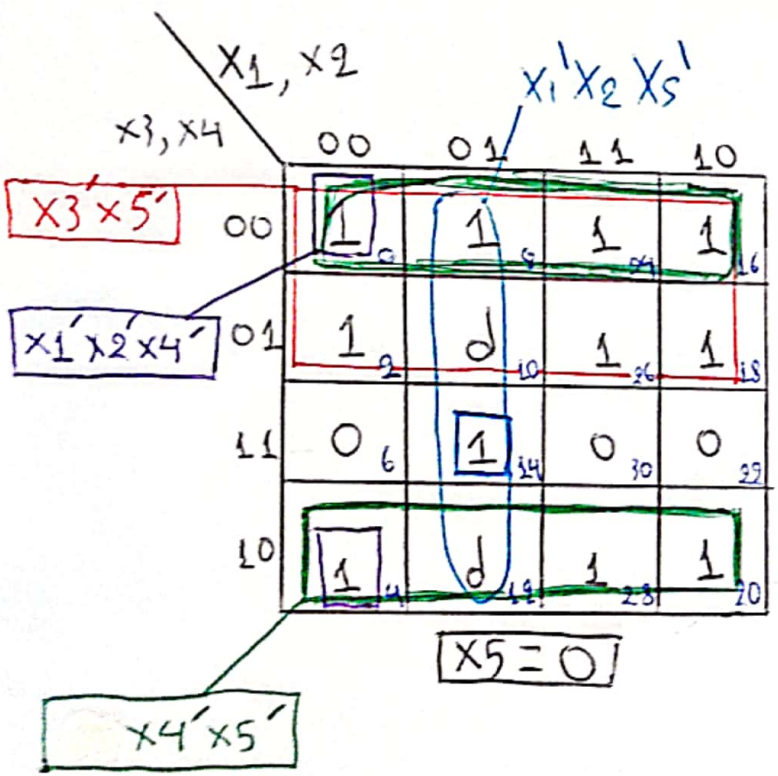
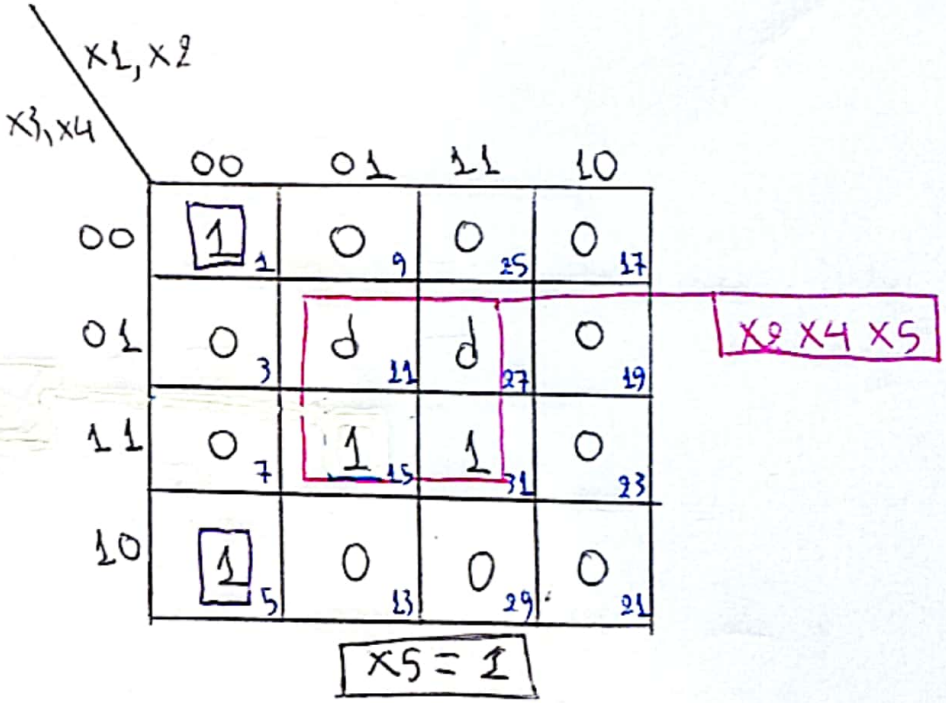
ΑΣΚΗΣΗ 1 (Sum of Products)

$$f(x1,x2,x3,x4,x5) = \sum m(0,1,2,4,5,8,14,15,16,18,20,24,26,28,31) + D(10,11,12,27)$$

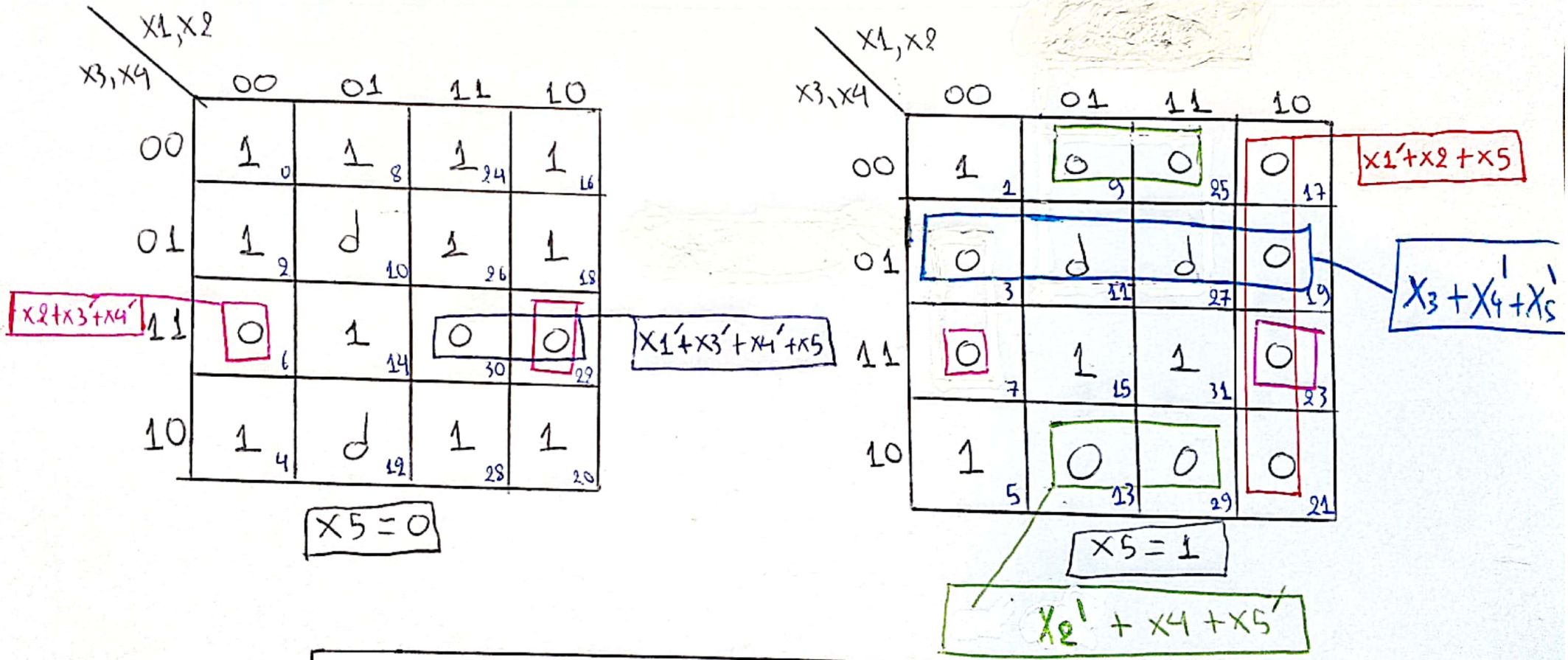




SOP: $x3'x5' + x1'x2'x4' + x4'x5' + x2\,x4\,x5 + x1'x2\,x5'$

ΑΣΚΗΣΗ 1 (Product of Sums)

$$f(x1, x2, x3, x4, x5) = \sum m(0,1,2,4,5,8,14,15,16,18,20,24,26,28,31) + D(10,11,12,17)$$



POS: $(x2 + x3' + x4')\,(x1' + x3' + x4' + x5)\,(x1' + x2 + x5)\,(X2' + X4 + X5')\,(X3 + X4' + X5')$

ΑΣΚΗΣΗ 1 (ΕΥΡΕΣΗ ΚΟΣΤΟΥΣ)

$F(x_1, x_2, x_3, x_4, x_5) = \sum m(0,1,2,4,5,8,14,15,16,18,20,24,26,28,31) + D(10,11,12,27)$

SOP

2 πύλες AND των 2 εισόδων
3 πύλες AND των 3 εισόδων
1 πύλη OR των 5 εισόδων
$(2 \cdot 2) + (3 \cdot 3) = 13$ είσοδοι AND
$(4 \cdot 5) = 5$ είσοδοι OR
Αθροισμα = $(13+5) + (2+3+1) = 18+6 =$ **24**

POS

4 πύλες OR των 3 εισόδων
1 πύλη OR των 4 εισόδων
1 πύλη AND των 5 εισόδων
$(4 \cdot 3) + (4 \cdot 1) = 16$ είσοδοι OR
$(5 \cdot 1) = 5$ είσοδοι AND
Αθροισμα = $(16+5) + (4+1+1) = 21+6 =$ **27**