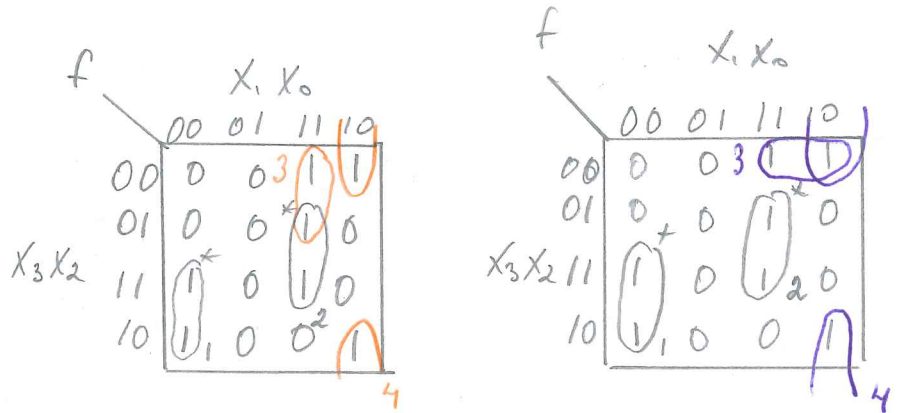


Föreläsninganteckningar 24/9-12

ex 4.5 från boken.

$$f(x_3, x_2, x_1, x_0) = \sum (2, 3, 7, 8, 10, 12, 15)$$

| x_3 | x_2 | x_1 | x_0 | f |
|--------|-------|-------|-------|-----|
| 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 1 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |
| övriga | | | | 0 |



alternativ lösning: (rött)

$$f = x_3 \cdot \bar{x}_1 \cdot \bar{x}_0 + x_2 \cdot x_1 \cdot x_0 + \bar{x}_3 \cdot x_1 \cdot x_0 + \bar{x}_2 \cdot x_1 \cdot \bar{x}_0$$

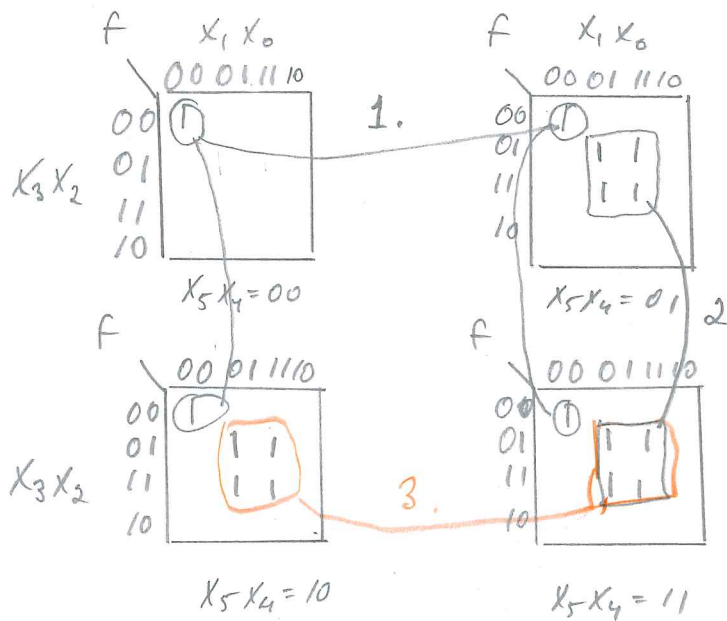
alternativ lösning 2: (blått):

$$f = x_3 \cdot \bar{x}_1 \cdot \bar{x}_0 + x_2 \cdot x_1 \cdot x_0 + \bar{x}_3 \cdot \bar{x}_2 \cdot x_1 + \bar{x}_2 \cdot x_1 \cdot \bar{x}_0$$

ex. på 6-variabler

$$f(x_5, x_4, x_3, x_2, x_1, x_0) = \sum (0, 16, 21, 23, 29, 31, 32, 37, 39, 45, 47, 48, 53, 55, 61, 63)$$

| | x_5 | x_4 | x_3 | x_2 | x_1 | x_0 | f |
|----|-------|-------|-------|-------|-------|-------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 16 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 21 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| 23 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| 29 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 31 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 32 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 37 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| 39 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 45 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| 47 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 48 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 53 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| 55 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 61 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 63 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |



$$f = \bar{x}_3 \cdot \bar{x}_2 \cdot \bar{x}_1 \cdot \bar{x}_0 + x_4 \cdot x_2 \cdot x_0 + x_5 \cdot x_2 \cdot x_0$$