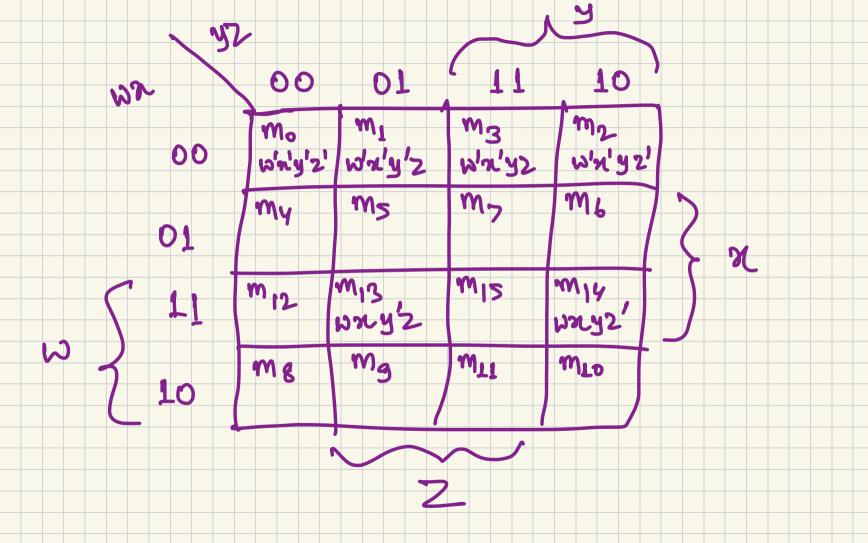
ACOL 215 (23 rd Sept.) For the boolean function Exercise F = A'C + A'B + AB'C + BC i) express F as a sum of minterms $F = \sum (1,2,3,5,7)$ minimal sum of products expression for F find the F= C+A'B

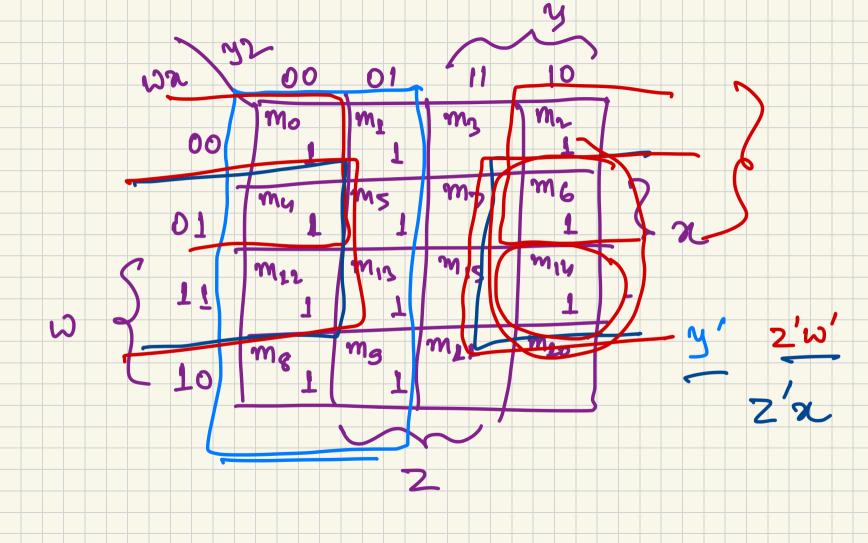
Exercise Simplify
$$F(x,y,2) = \sum (0,1,2,5)$$

 $F(x,y,2) = y'z + x'z'$
Exercise Simplify $F(x,y,2) = \sum (0,2,3,4,6)$
 $F(x,y,2) = z' + x'y$

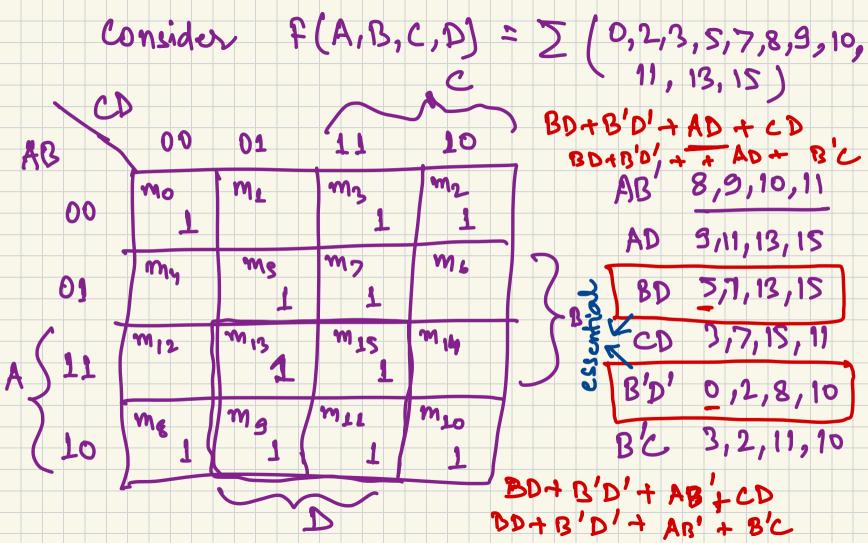
Four-variable K-map Same as three variable K-map -) one square represent one minterm (giving a term with 4 literals) -) two adjacent equares represent a ferm with three liberals -) four adjacent equales two liferals One literals Constant function 1.



Exercise Simplify $F(\omega_{1}x, y, 2) = \sum_{i=1}^{n} \{0,1,2,4,5,6,8,9,12,13,14\}$



Implicants The product terms of a sum-ofproducts representation (Of a Boolean function) are called implicants of the function. when the implicant has a value 1, the function has a value !. A prime implicant is a product term obtained by combining the maximum tossible number of adjacent squares.



Five -variable K-map Horks Sinilarly but cumbersome Product of sums simplification -) Y You can compute a simplified sum of products expression for f and then take complement white 0's Where there are no 1's and merge them.

