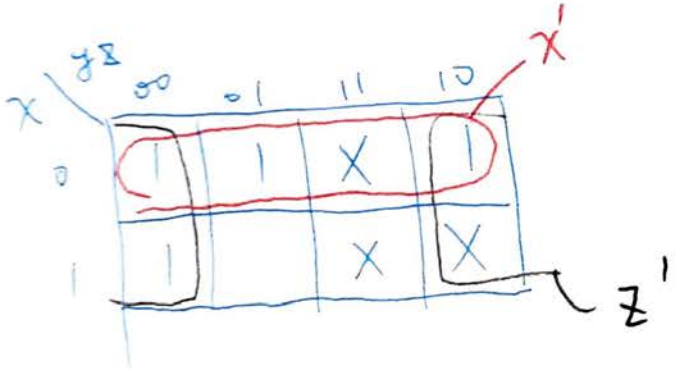
4.

(a) $F(x,y,z) = \Sigma(0,1,2,4)$

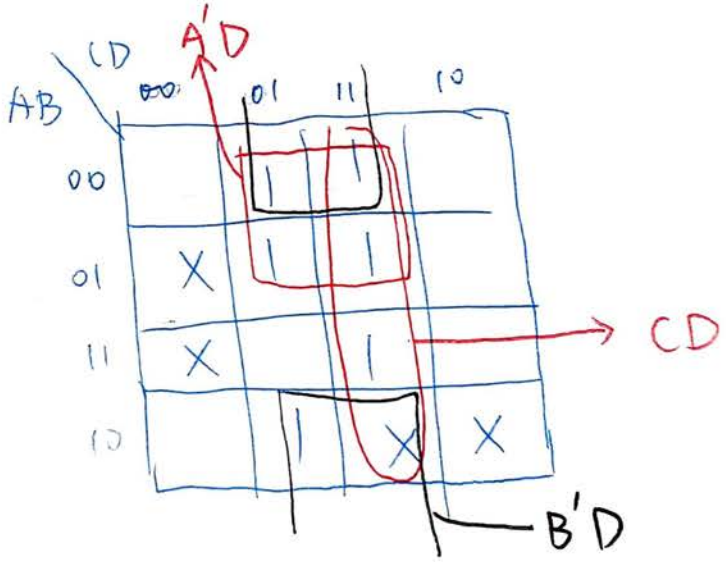
$D(x,y,z) = \Sigma(3,6,7)$



$F = x' + z'$ (sum of products)

(b) $F(A,B,C,D) = \Sigma(1,3,5,7,9,15)$

$D(A,B,C,D) = \Sigma(4,10,11,12)$



$F = D + B'D + A'D$ (sum of products)