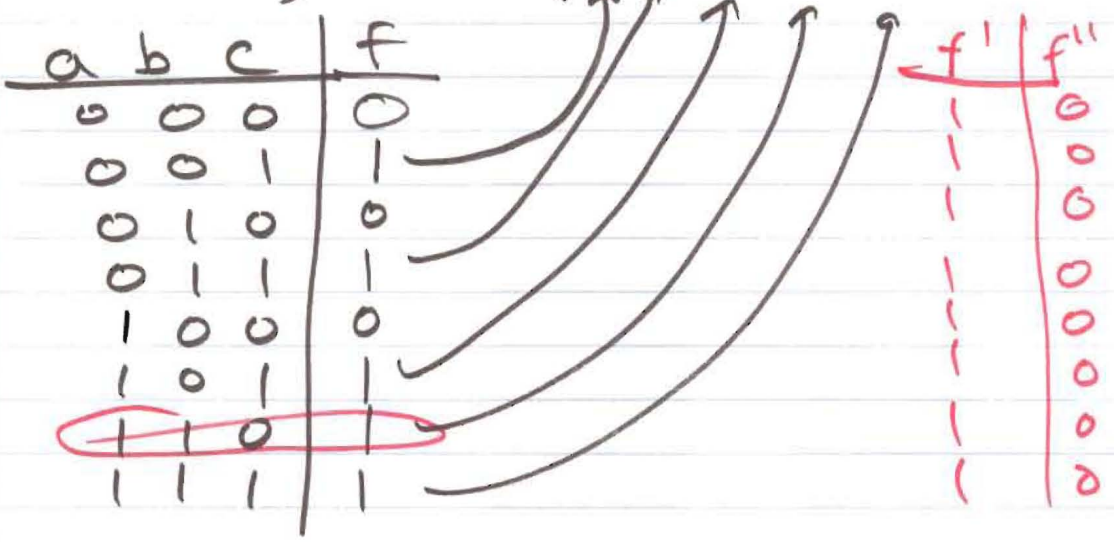
9/22/09 outline

- HW 4 posted + Due Thursday
- Exam 1 date changed to Oct 9th
- No extra credit for Picnic since Physics exam
- Hand back Quiz 3
-

$f' = 1$

$f'' = 0$

$f(a,b,c) = \Sigma m(1, 3, 5, 6, 7)$



$f = \bar{a}\bar{b}c + \bar{a}bc + a\bar{b}c + ab\bar{c} + abc$

$f = \bar{b}c(\bar{a}+a) + \bar{a}bc + ab\bar{c} + abc$ 1) Dist.

$f = \bar{b}c + \bar{a}bc + ab\bar{c} + abc$ 2) comp id

$c=1$
$f=1$
$c=0$
$f=ab$

$f = \bar{b}c + bc + ab\bar{c}$ 3) Dist, comp, id

$f = c + ab\bar{c}$ 4) Dist, Comp, id

$f = c + (ab)\cdot\bar{c}$

$f = (c+ab) * (c+\bar{c})$ 5) Dist (2)

$\boxed{f = (c+ab)}$ 6) Comp, id

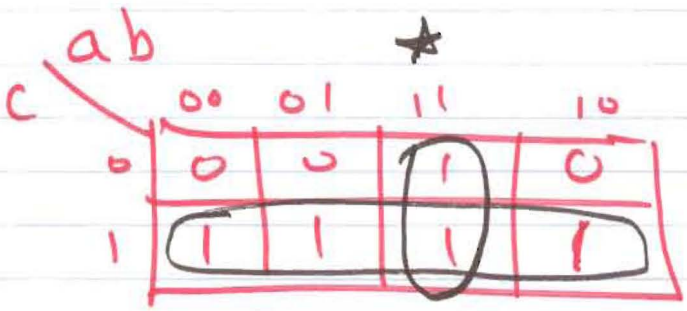
$(a\bar{b}c)' = \bar{a}+b+\bar{c}$

SoP

$(abc + \bar{a}b\bar{c} + \bar{a}bc)'$ — SoP

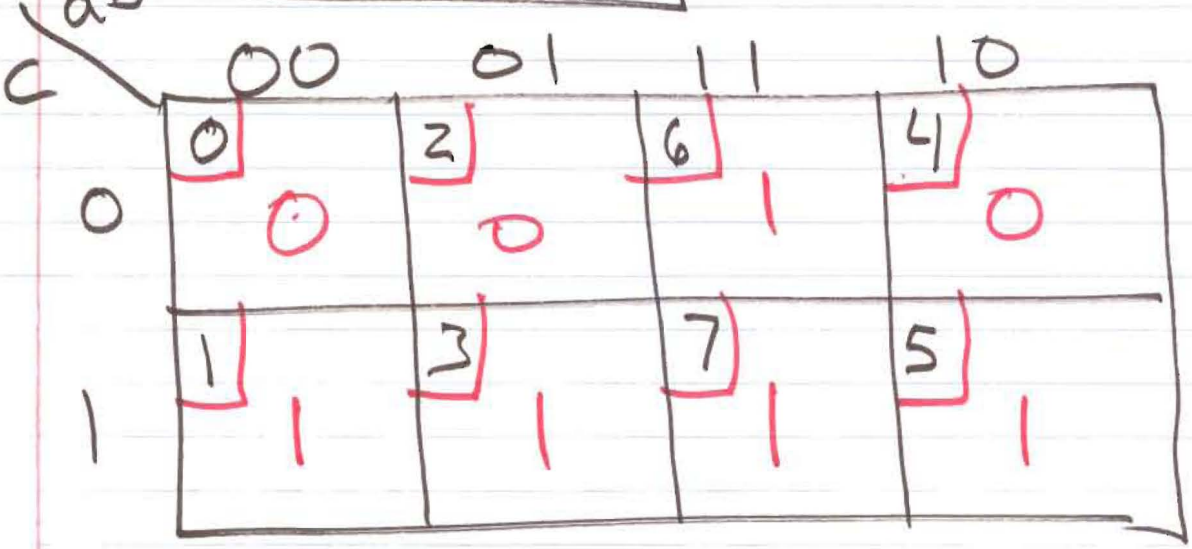
$(\bar{a}+\bar{b}+\bar{c})(a+\bar{b}+c)(a+\bar{b}+\bar{c})$ — PoS

K-map



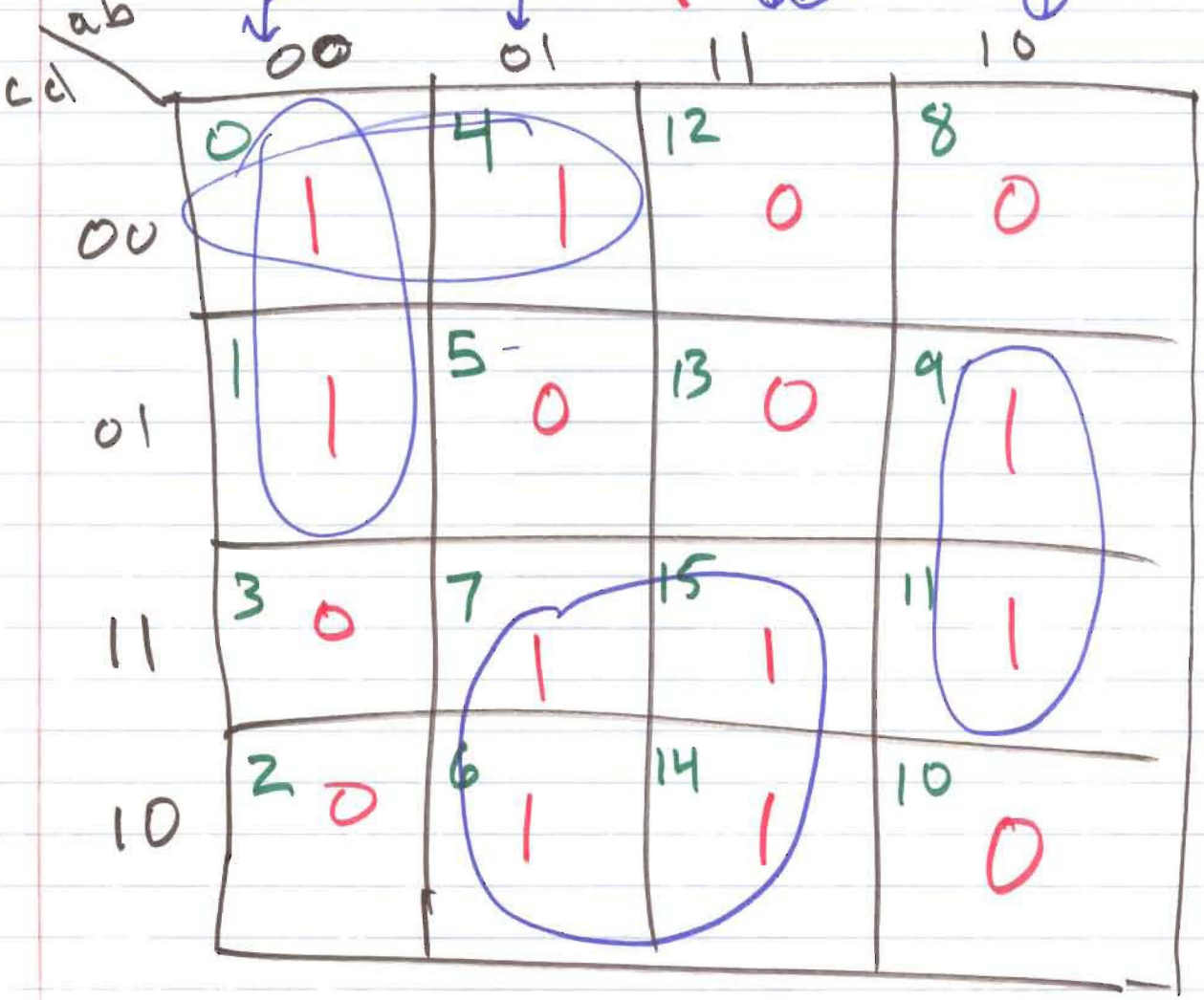
Group is in power of 2 Groupings
1, 2, 4, 8, 16

$f = c + ab$



$\bar{b}$ $\bar{a}$ b a

$f(a,b,c,d) = \Sigma m(0,1,4,6,7,9,11,14,15)$



$f = bc + a\bar{b}d + \bar{a}\bar{c}\bar{d} + \bar{a}b\bar{c}$