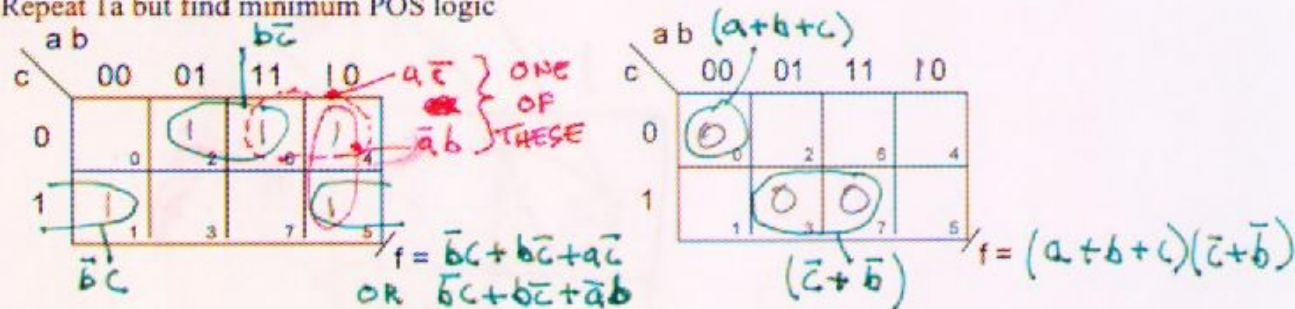


Key

Use the variable naming and cell numbering as shown here for 3 variable and 4 variable maps:

1a) Use a K-map to find minimum SOP logic for $F(a,b,c) = \sum m(1, 2, 4, 5, 6)$

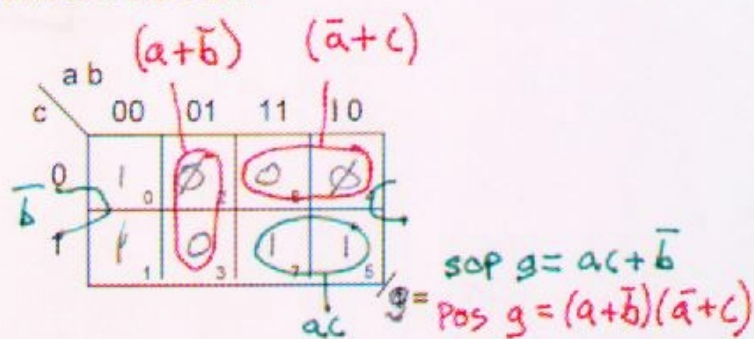
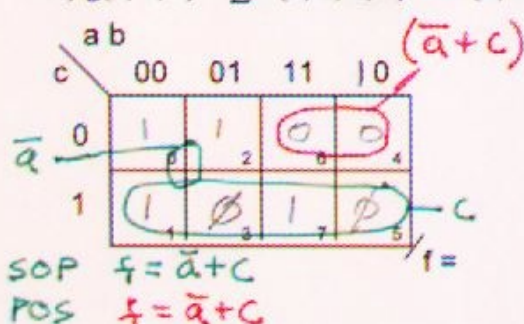
1b) Repeat 1a but find minimum POS logic



2) Use a K-map to find minimum SOP and POS functions for the following functions that are incompletely specified, i.e. they contain don't cares:

a) $f(a, b, c) = \sum m(0, 1, 2, 7) + \emptyset(3, 5)$ where \emptyset is don't care

b) $g(a, b, c) = \sum m(0, 1, 5, 7) + \emptyset(2, 4)$



3) Use a K-map to find minimum SOP functions for the following function:

$h(a, b, c, d) = \sum m(0, 3, 6, 11, 13, 15) + \emptyset(5, 8, 10, 14)$

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

