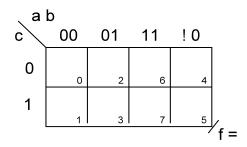
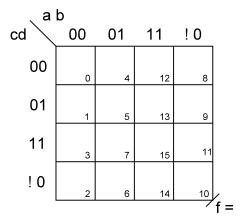
## HW # 5 ENGR-354 Due Monday 9/28/20

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:

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