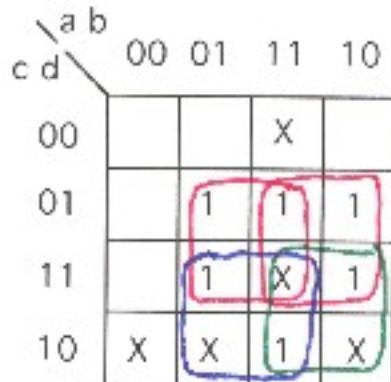
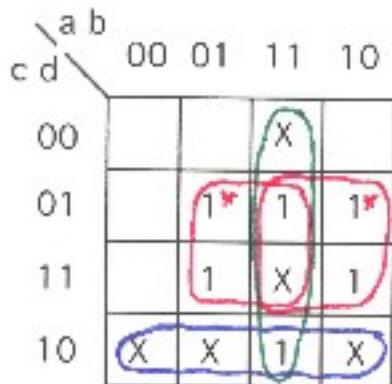


Homework 9 Solutions

4 e.



After choosing the two essential prime implicants, there are four ways to cover the remaining 1, m_{14} , giving

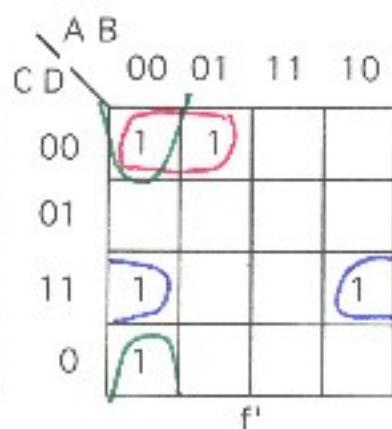
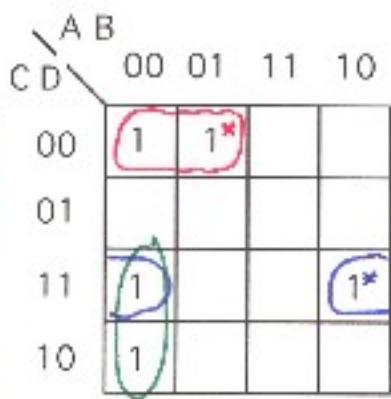
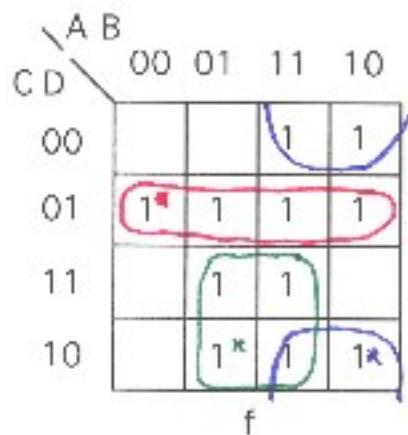
$$f_1 = \underline{b'd} + \underline{ad} + \underline{cd'}$$

$$f_2 = \underline{b'd} + \underline{ad} + \underline{ab}$$

$$f_3 = \underline{bd} + \underline{ad} + \underline{bc}$$

$$f_4 = \underline{bd} + \underline{ad} + \underline{ac}$$

6 c.



$$f_1 = \underline{C'D} + \underline{AD'} + \underline{BC}$$

$$f_2' = \underline{A'C'D'} + \underline{B'CD} + \underline{A'B'C}$$

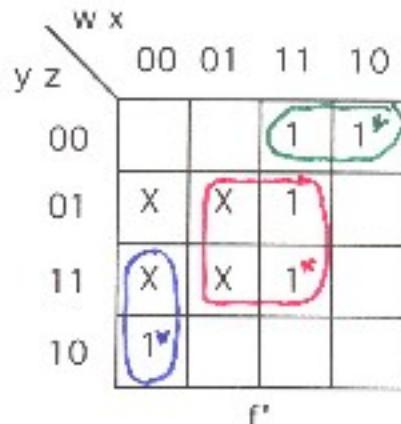
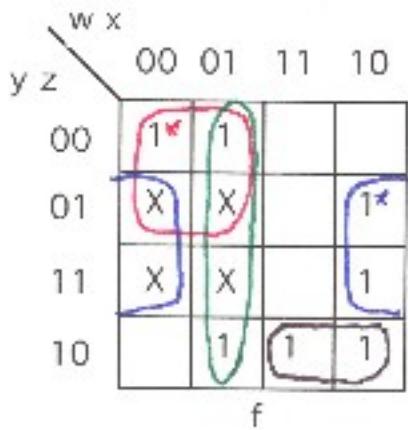
$$f_3' = \underline{A'C'D'} + \underline{B'CD} + \underline{A'B'D'}$$

$$f_2 = (A + C + D)(B + C' + D')(A + B + C')$$

$$f_3 = (A + C + D)(B + C' + D')(A + B + D)$$

Homework 9 Solutions

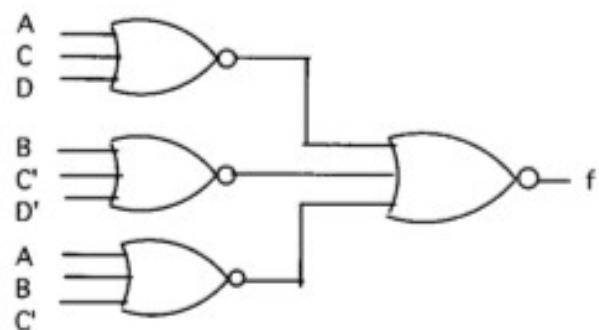
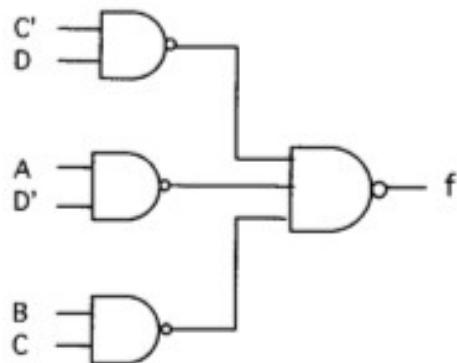
6 e.



$$f_1 = \underline{w'} \underline{y'} + \underline{x'} \underline{z} + \underline{w'} \underline{x} + \underline{w} \underline{y} \underline{z'} \\ f_2 = \underline{f_2'} + \underline{x} \underline{z} + \underline{w'} \underline{x'} \underline{y} + \underline{w} \underline{y'} \underline{z'}$$

$$(x' + z') (w + x + y') (w' + y + z)$$

8 c.



8 e.

