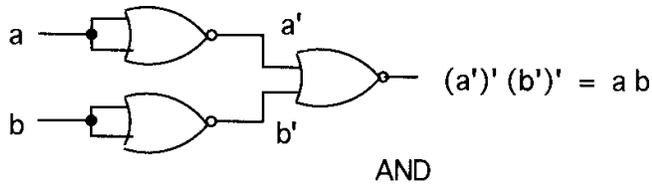
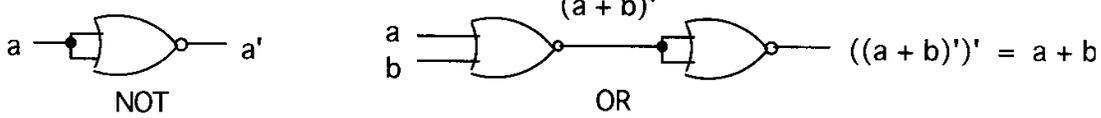


# Homework 6 Solutions

16.



17. a.  $f = a(b c)' + (c + d)' = a b' + a c' + c' d$

d.  $f = (a \oplus b) \& (c \oplus d)$   
 $= (a' b + a b') \oplus (c' d + c d')$   
 $= a' b c d + a' b c' d' + a b' c d + a b' c' d' + a b c' d$   
 $+ a b c d' + a' b' c' d + a' b' c d'$   
 1 for an odd number of 1's

18.

