

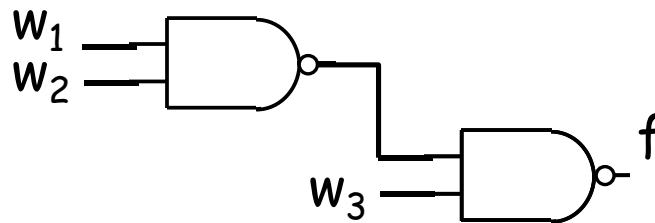
University of California at Berkeley
 College of Engineering
 Department of Electrical Engineering and Computer Science

EECS 150
 Spring 2004

R. H. Katz

Problem Set # 8 (Assigned 1 April, Due 9 April)

- Derive a table to show the coverage of various stuck-at-0 and stuck-at-1 faults by the eight possible input combinations. What is the minimum test set for this circuit?



- Devise a test to distinguish between two circuits that implement the following expressions:

(i) $f = x_1 x_2 x_3 + x_2 \bar{x}_3 x_4 + \bar{x}_1 \bar{x}_2 x_4 + \bar{x}_1 x_3 \bar{x}_4$

(ii) $g = (\bar{x}_1 + x_2)(x_3 + x_4)$

- In the following circuit, are all single stuck-at-0 and stuck-at-1 faults in the circuit detectable? If not, explain why?

