

**University of California at Berkeley**  
**College of Engineering**  
**Department of Electrical Engineering and Computer Sciences**

EECS150  
Spring 2002

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Homework #1

This homework is due on **Friday Feb 1<sup>st</sup> by noon**. Homework will be accepted in the EECS150 homework box outside 218 Cory Hall. Late homework will be penalized by 50%. No late homework will be accepted after the solution is handed out.

i. From Mano, problems:

10-13, 10-14, 10-15, 10-16

ii. Draw a circuit that implements the Boolean function, using 3 n-type and 3 p-type MOS transistors:

$$Y = (A(B+C))'$$

iii. From Mano, problem 10-12, with the following change. The final sentence should read "... using 5 n-type and 5 p-type MOS transistors."

iv. Name the function performed by the following circuit. Draw its common symbol and label all inputs and outputs.

