

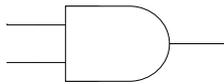
## EECS 270

### Homework #1

1. Implement with gate symbols the following function: **(3)**

$$F = \bar{A} * B + (\overline{C + D}) * E$$

2. Prove theorems T6', T7', and T10 (page 199) using perfect induction. **(4)**
3. page 301, #4.5 **(4)**
4. Consider a simple circuit consisting of an AND gate, such that  $F = A * B$ :



Replace this circuit with a circuit that has an identical logic function but is constructed only of OR and INV gates. **(4)**