Homework 1: Digital Logic

CS 200 • 10 Points Total
Due Wednesday, February 1, 2017

Assignment

Answer each of the following questions.

1. Draw a truth table to demonstrate that xy' is equivalent to (x'+y)'. (2 pts)

2. Use a Karnaugh Map to reduce the following function to a minimal form. (4 pts)

   F(a,b,c,d) = a'bcd + abc + ab'd' + a'bd' + b'c'd' + cd'

3. Use truth tables to show that your reduced function from question 2 is logically the same as the original function. Make a truth table for **each function** and confirm their results are identical. (4 pts)