Lecture 12

◆ Logistics
  ■ HW4 will be assigned on Wednesday, due 10/29
  ■ Lab4 continuing this week
  ■ Midterm1 in class on Wednesday this week
  ■ Review session Tomorrow (Tuesday) 6pm in TBD
  ■ Lots of office hours: M 5:30-6:45, T 12:45-2:30, 4:00-5:30

◆ Today
  ■ Quick review of materials covered in midterm 1
  ■ Logistics of midterm 1
  ■ Questions
  ■ Going over some problems

Topics covered

◆ Combinational logic basics
  ■ Binary/hex/decimal numbers
  ■ Ones and twos complement arithmetic
  ■ Truth tables
  ■ Boolean algebra
  ■ Basic logic gates
  ■ Schematic diagrams
  ■ Timing diagrams
  ■ de Morgan's theorem
  ■ AND/OR to NAND/NOR logic conversion
  ■ K-maps (up to 4 variables), logic minimization, don’t cares
  ■ SOP, POS
  ■ Minterm and maxterm expansions (canonical, minimized)
Topics covered (continued)

- Combinational logic applications
  - Combinational design
    - Input/output encoding
    - Truth table
    - K-map
    - Boolean equation
    - Schematics
  - Multiplexers/demultiplexers

Midterm 1 logistics

- 45 minutes long (starts 10:35)
- Materials covered up to Lecture 10
- Closed book/notes, no calculator
- Scratch papers provided
- Just have your pencil/pen and eraser
- Raise hand for questions (don’t walk to get help)