Lecture 24

◆ Logistics
  ■ HW9 is due Friday
  ■ All lab must be done by 6/5 Thu 6pm.
  ■ Final Exam: 6/9 Monday 8:30am EEB105 (here!)
  ■ Review Friday lecture + Saturday 11:30am?? CSE 403

◆ Last lecture
  ■ Wrapped up all topics for CSE370

◆ Today:
  ■ One last clarification
  ■ Start of review (the focus items)
  ■ Yoky research
  ■ Evaluation?

$D_0 = Q_0 N'$
$D_1 = Q_0 EN + Q_1 N'$
$D_2 = Q_1 EN + Q_2 N'$
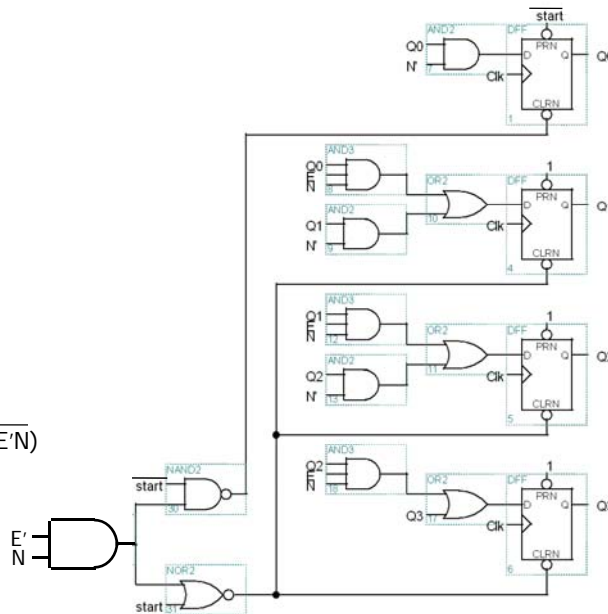$D_3 = Q_2 EN + Q_3$

$\overline{Preset_0} = \overline{start}$
$\overline{Preset_{1,2,3}} = 1$
$\overline{Clear_0} = \overline{(start'\ E'\ N)}$
$\overline{Clear_{1,2,3}} = \overline{(start + E'N)}$

What was covered after midterm 2

◆ Finite state machines

- FSM design procedure
  1. State diagram
  2. state-transition table
  3. State minimization
  4. State encoding
  5. Next-state logic minimization
  6. Implement the design
- State minimization
- One-hot / output-oriented encoding
- FSM design guidelines
  - ↙ Separate datapath and control
- Pipelining, retiming partitioning basics