

## HW6a

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1. Consider a 4-bit synchronous binary up counter.
  - (a) Draw the logic diagram
  - (b) Construct Verilog RTL representation for the logics with verification.
2. Use D flip-flops and gates to design a binary counter with each of the following repeated binary sequences:
  - (a) 1, 5, 7
  - (b) 0, 2, 4, 6