Deliverable 1
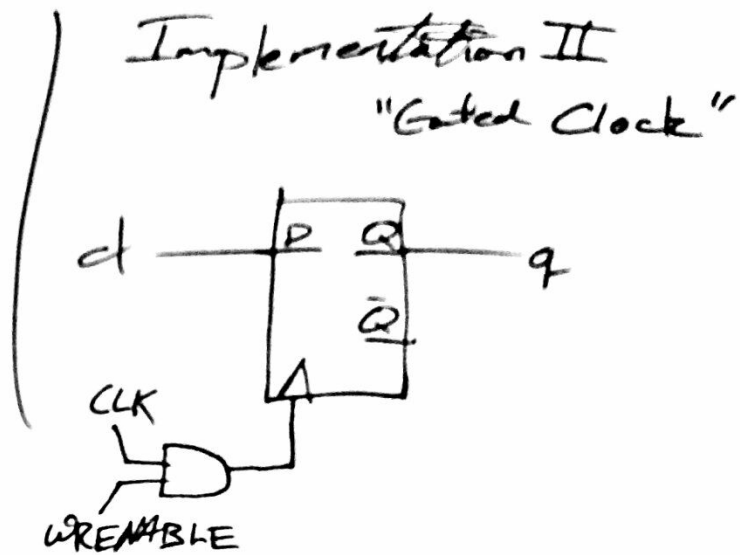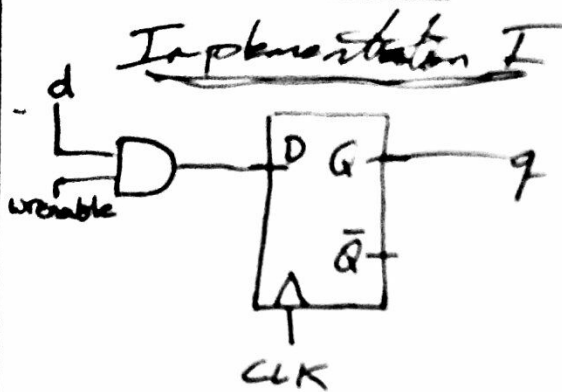
Implementation I

Implementation II
"Gated Clock"

Deliverable 6

The `address` input is a five-bit binary representation of a number (0-31). `enable` is a 1-bit boolean. If `enable` is 0, the shift does effectively nothing and the decoder outputs 32'b0 as expected. When `enable` = 1, however, the shift moves the 1 bit to the `address`'th bit of the output. The shift guarantees that only one 1 is output when `enable`'d, as expected. The shift also allows `address` to directly manipulate the position of the 1 in the output.