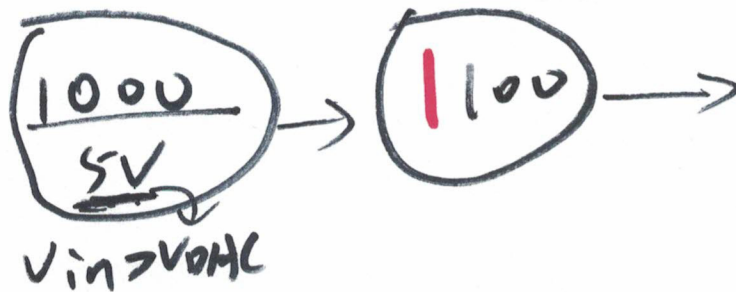
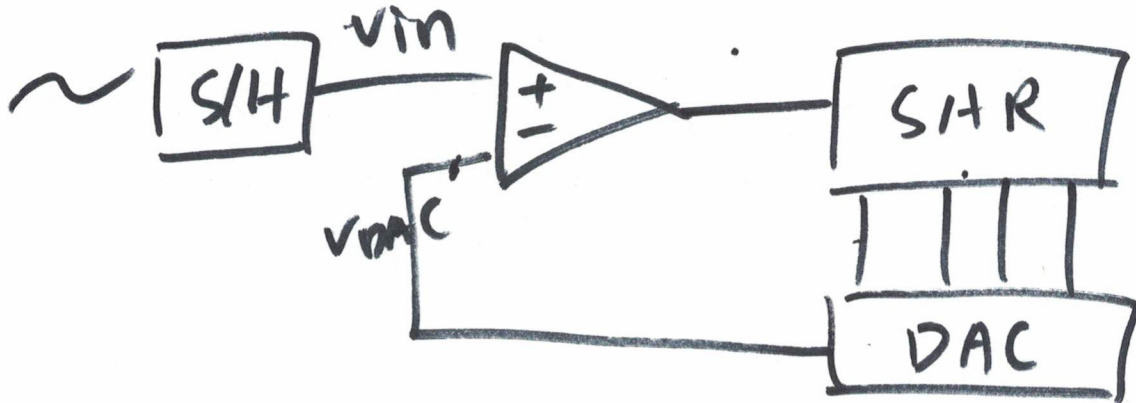
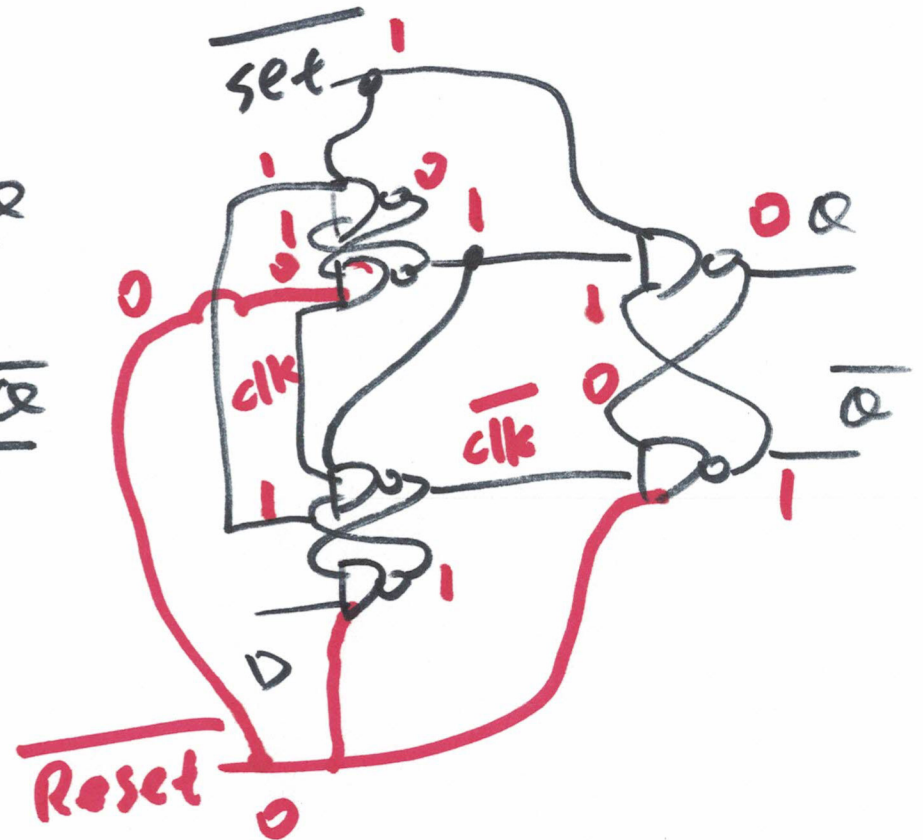
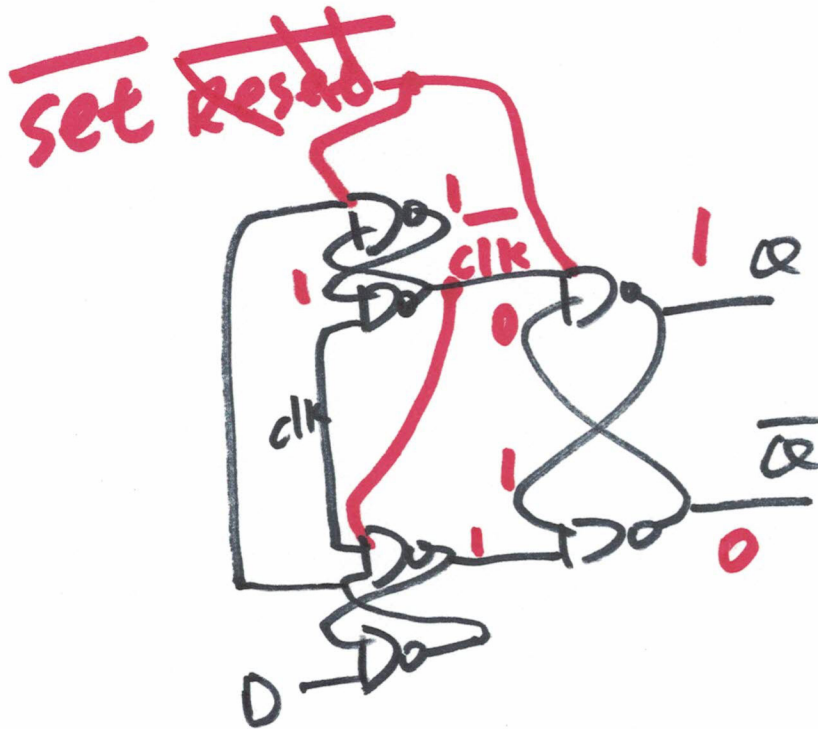
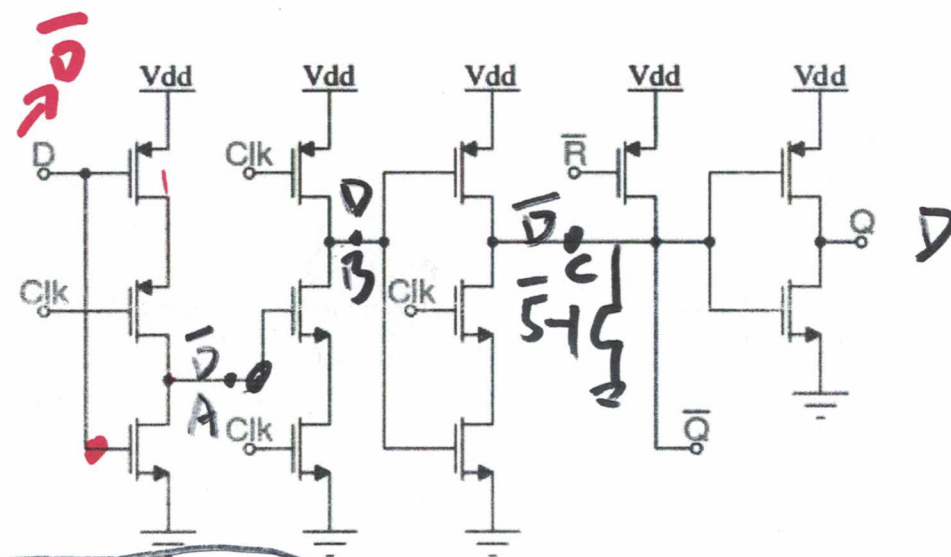
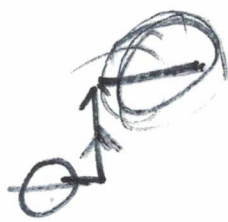


1. For a 4-bit SAR ADC, V_{REF} for the DAC is 10 V, V_{in} at a moment is 6.2V. Show all the states of the ADC's output in a state diagram. Show both the analog voltage and the digital voltage for each state. (20 points)



TI DFF





D	$\bar{D}$
0 → 1	1 → 0
1 → 0	0 → 0