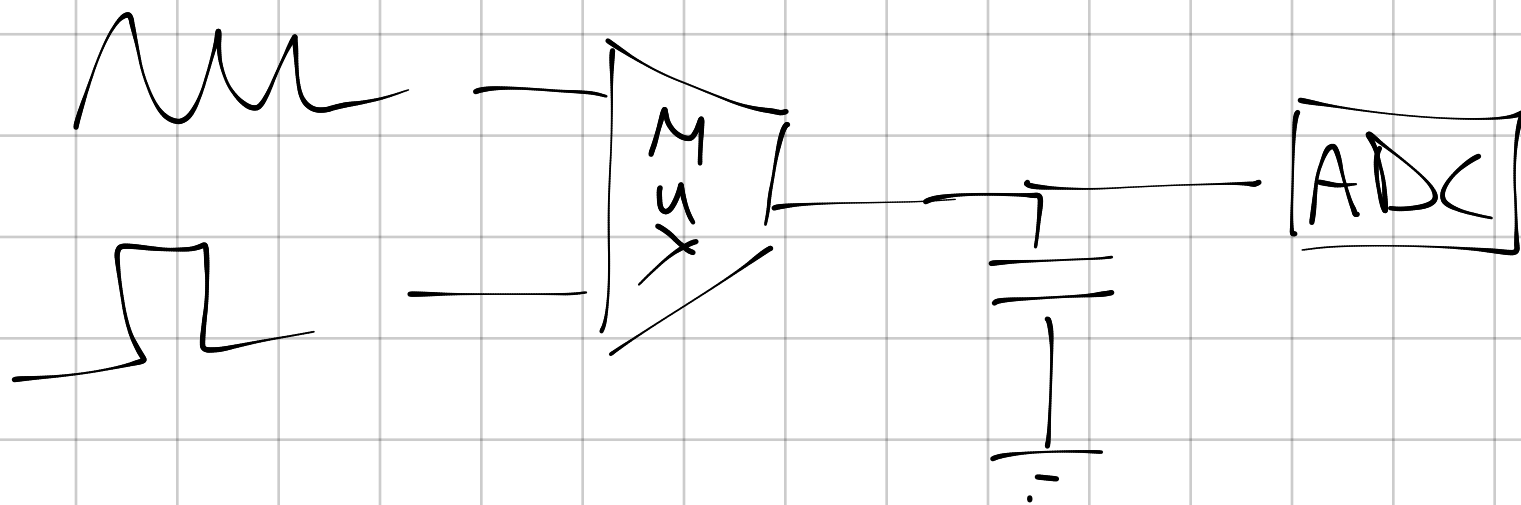


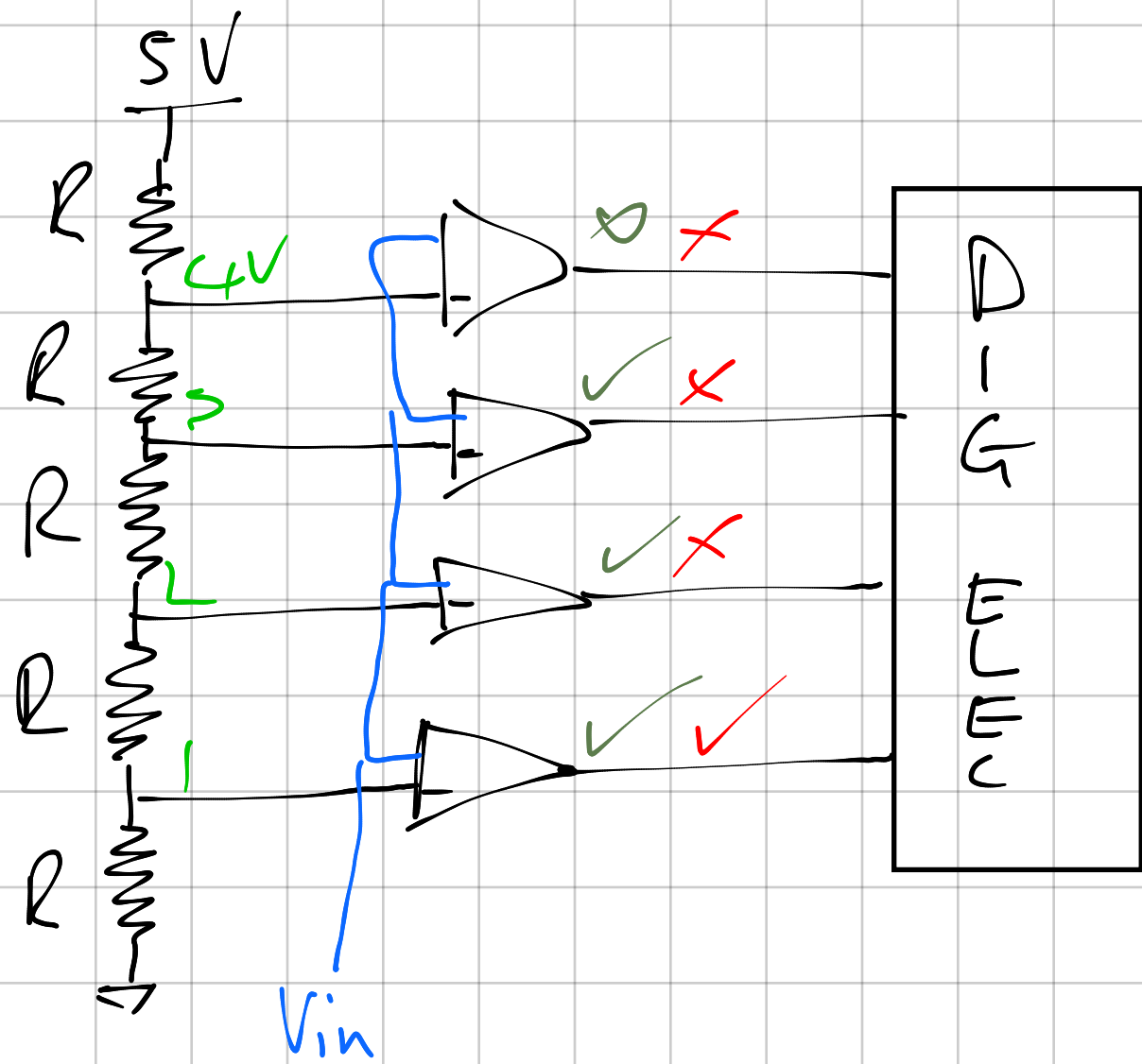
19 September 2013

Recap

- registers
- parallel // parallel
- serial in parallel or serial out
- parallel and serial in - parallel and serial out



Flash or parallel ADC



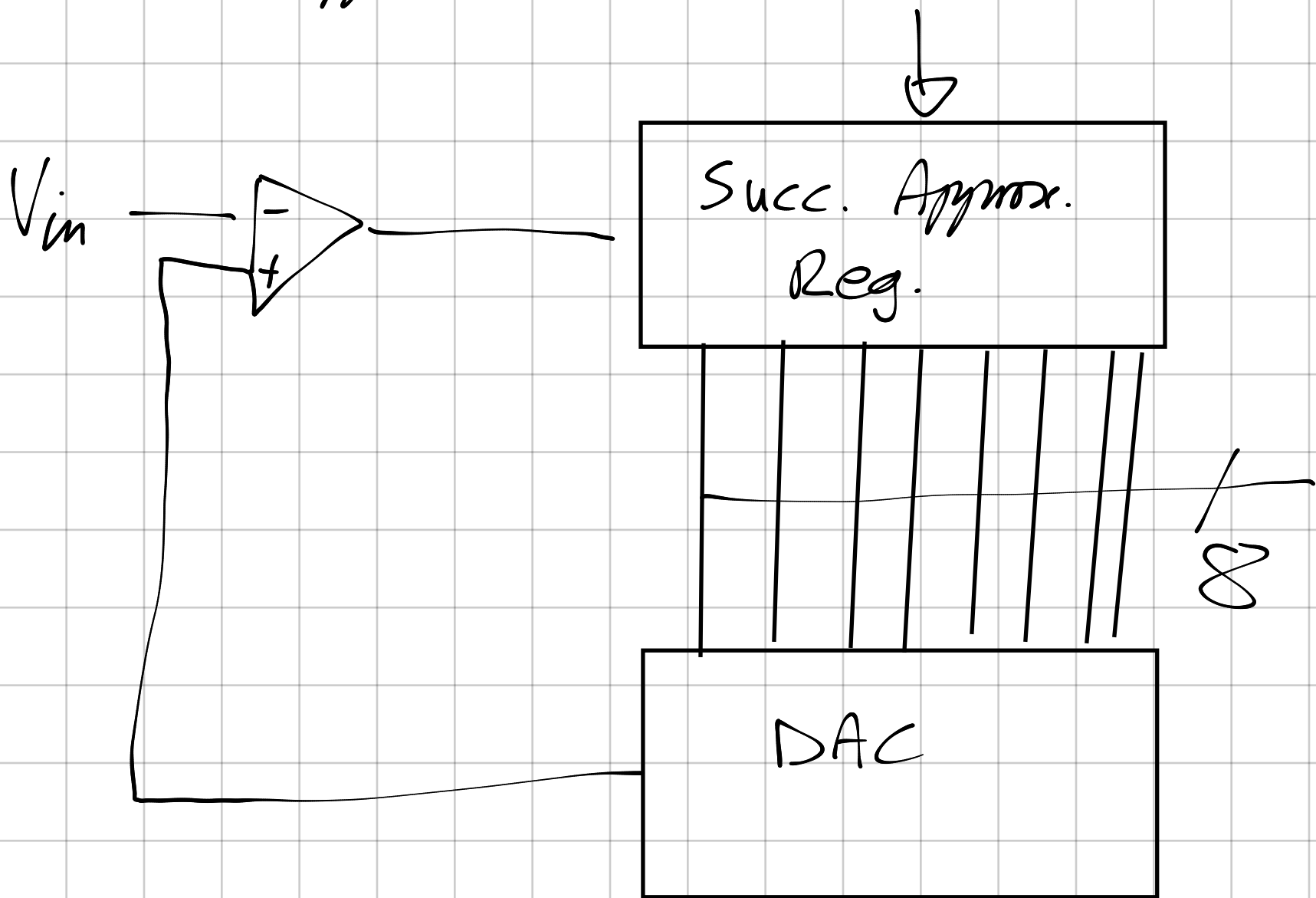
$$V_{in} = 3,3V$$

0b0111

$$V_{in} = 1,8V.$$

0b0001

Successive approximation ADC clk



4 bit $V_{ref} = 4V$. $res = \frac{4}{2^n} = \frac{4}{16}$

$V_{in} = 3,14$.

$= 0,25$

1st bit $0b1000 \Rightarrow 2V$

2nd bit $0b1100 \Rightarrow 2V + 1V = 3V$.

3rd bit $0b1110 \Rightarrow 2V + 1V + 0,5V = 3,5V$.

4th bit $0b1101 \Rightarrow 2V + 1V + 0,25 = 3,25V$

final $0b1100 \Rightarrow 3V$

