

PROJECT TEST DAY → 20 SEPTEMBER 2012



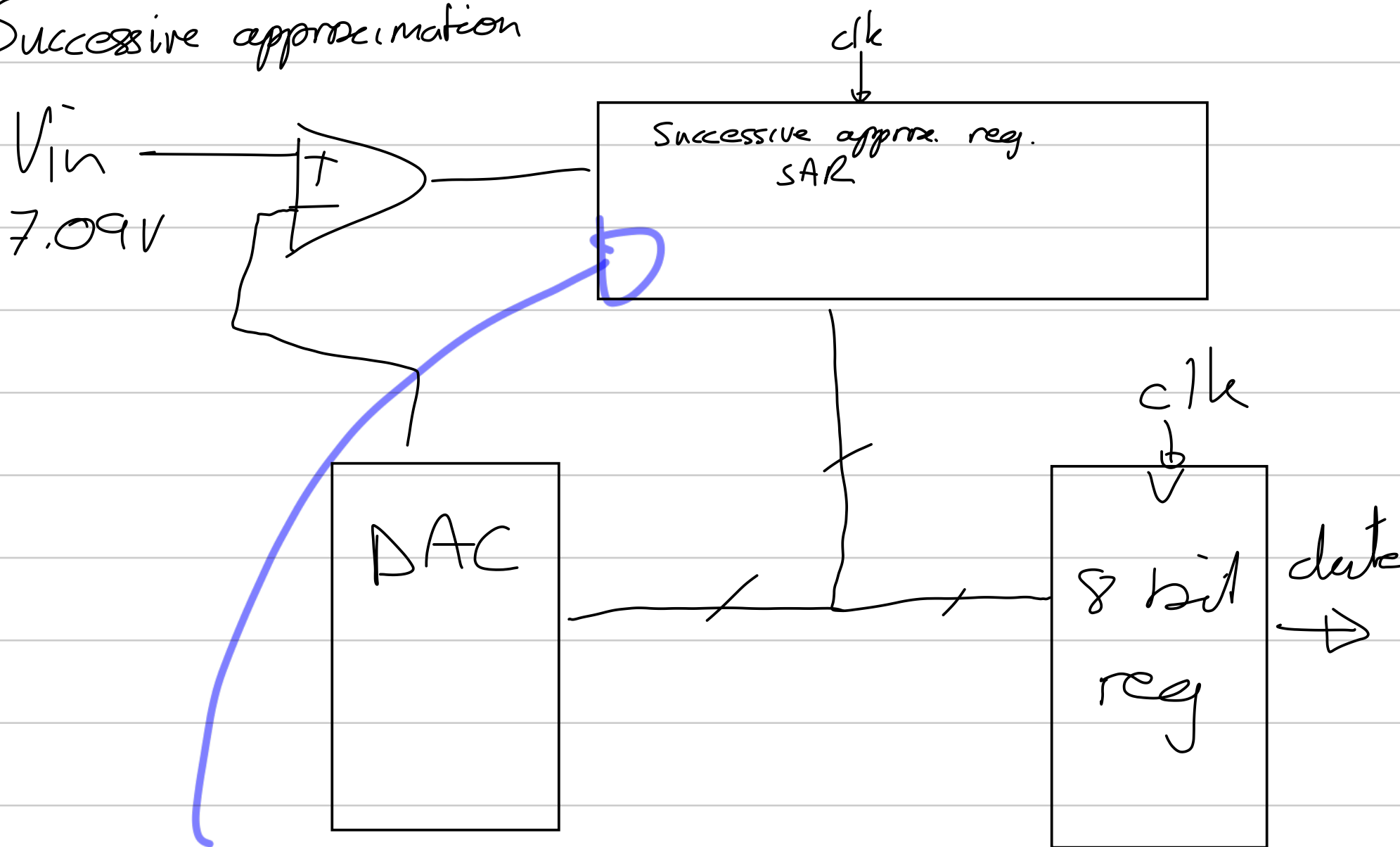
Using $Q0.7e8$ find the area of a circle with radius 0.3333

Show working and do not calculate answer in decimal and then convert to floating point -- do working in floating point.

10 minutes.

20 September 2012 - ADC/DAC cont.

Successive approximation



0 01111111 \rightarrow 127 \rightarrow 4.9804

1 10111111 \rightarrow 127 + 64 = 191 \rightarrow 7.4901

2 10011111 \rightarrow 191 - 32 = 159 \rightarrow 6.2353

\downarrow

7 10110100 \rightarrow 181 - 1 \Rightarrow 180 \therefore 7.0588

