Exercise:
Time Domain

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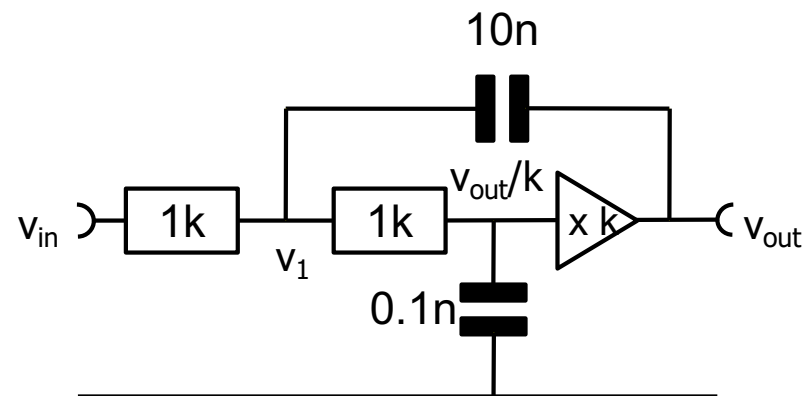
- A filter is made up of a
  - low-pass
  - an ideal unity gain buffer
  - a high-pass with same corner frequency as the low-pass

- What is the time response of this filter to a unit step ?

- Calculate and Simulate!

■ Derive H[s] for the following active filter

• The (ideal) voltage amplifier has gain k

■ For which k do you get a divergence ?

■ What is the step response for k=1 ?

■ Simulate the circuit and compare quantitatively.