Homework #4
Op-Amp Differentiator
Due: Monday, 6 November

We have studied the practical Miller integrator circuit in Experiment 8, in which there is a feedback resistor. Now, we will consider a simple example of an op-amp differentiator. First, label which of the two signals shown is V_{in} and which is V_{out}. Then, show that the circuit is mostly working correctly. That is, using the equation for the ideal op-amp differentiator, quantitatively demonstrate that the two signals are consistent. Also identify any non-ideal characteristics of the output voltage.