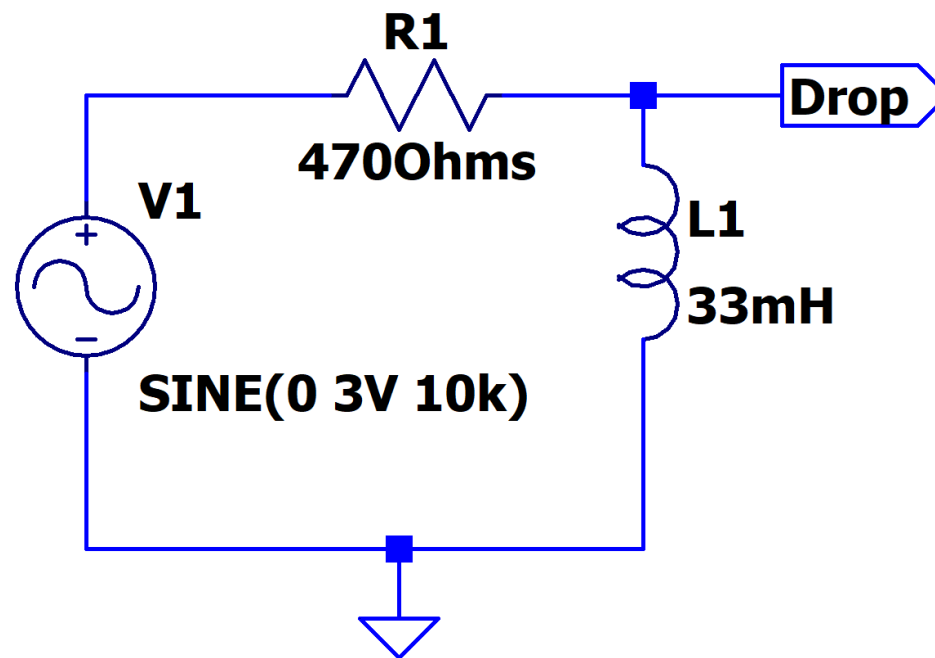


EEGR2255 Electrical Laboratory

Laboratory-08 Capacitors, Inductors and Response of First Order RL and RC Circuit

Simulation Results

Problem 1 - RL Circuit



.tran 0 2ms 0ms 0.1ms

Fig 1a. RL Circuit Diagram

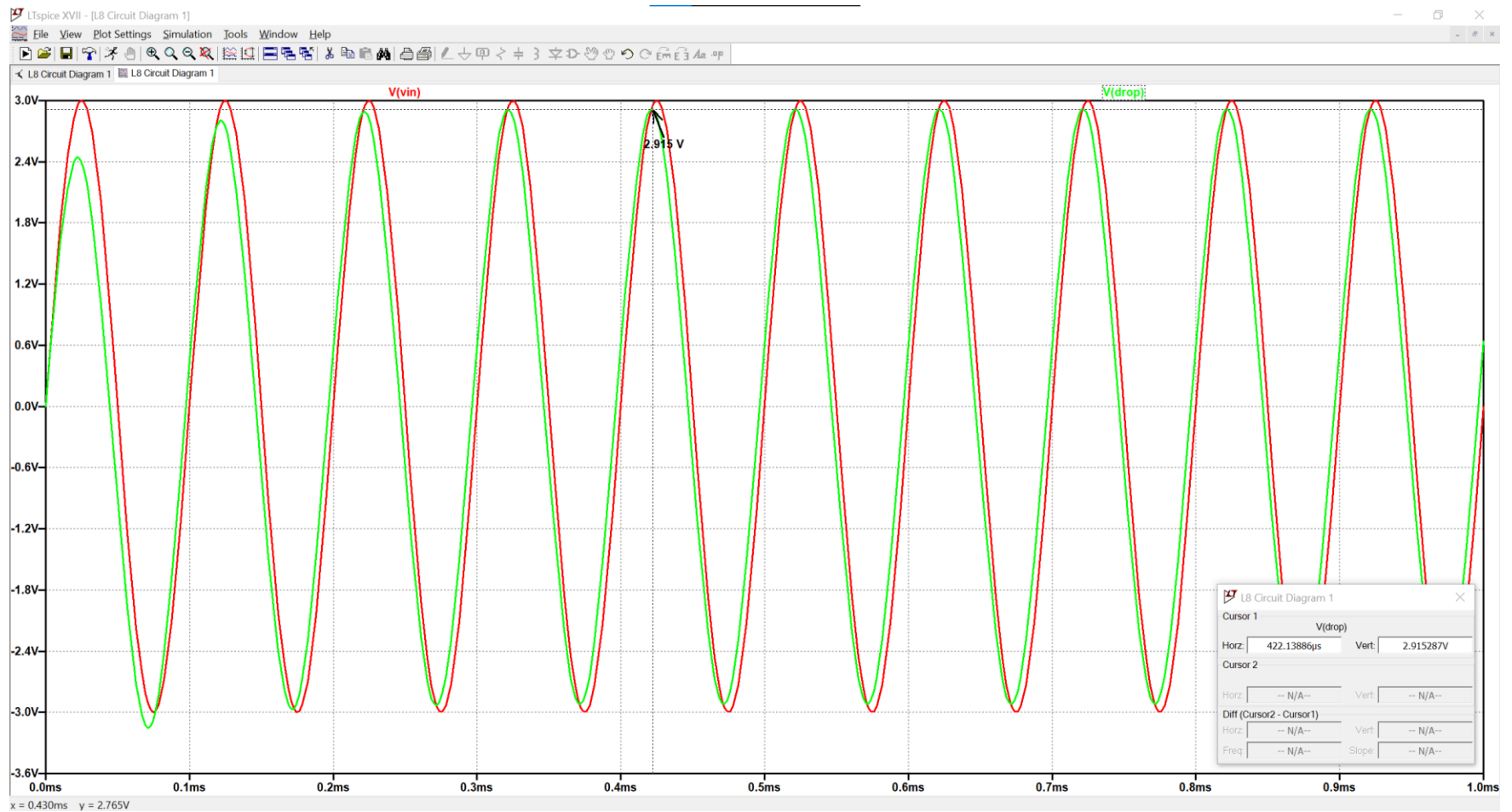
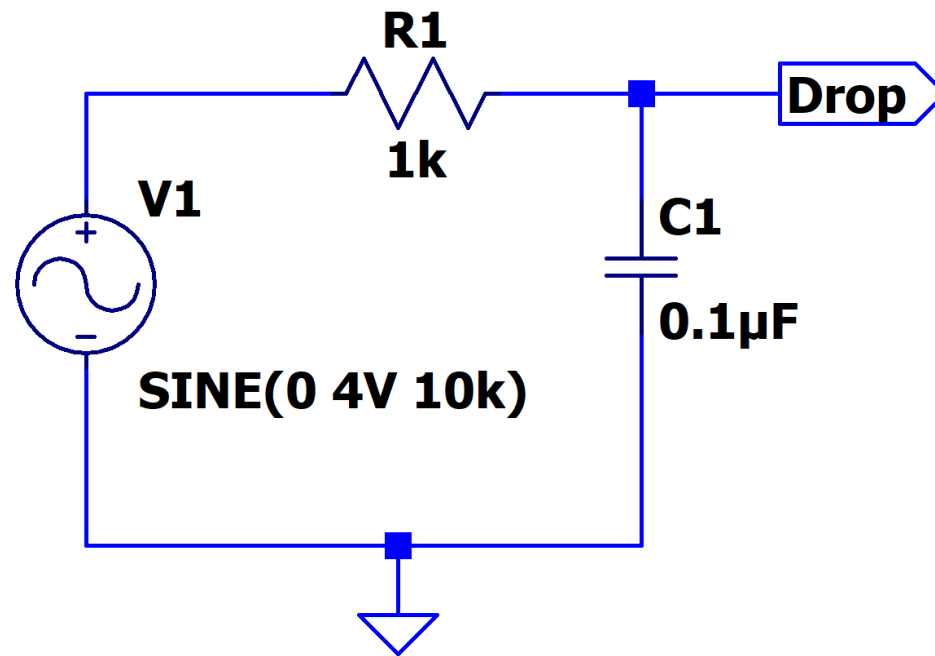


Fig 1b. Output Waveform

$$V_L = 2.915 \cos (1.6 * 10^3 t)$$

Problem 2 - RC Circuit



.tran 0 2ms 0ms 0.1ms

Fig 2a. RC Circuit Diagram

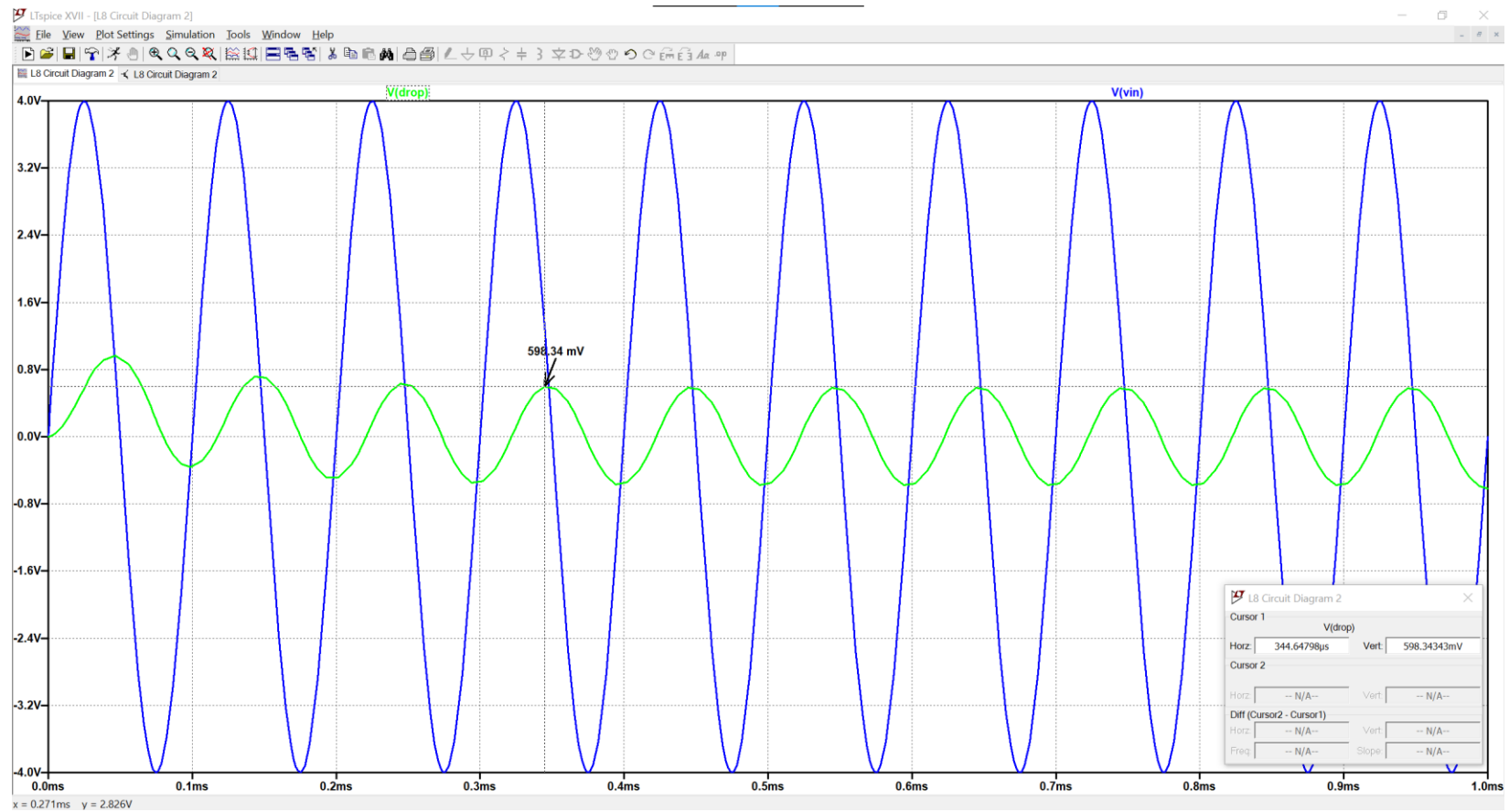


Fig 2b. Output Waveform

$$V_C = 598.34 * 10^{-3} \sin (1.6 * 10^3 t)$$