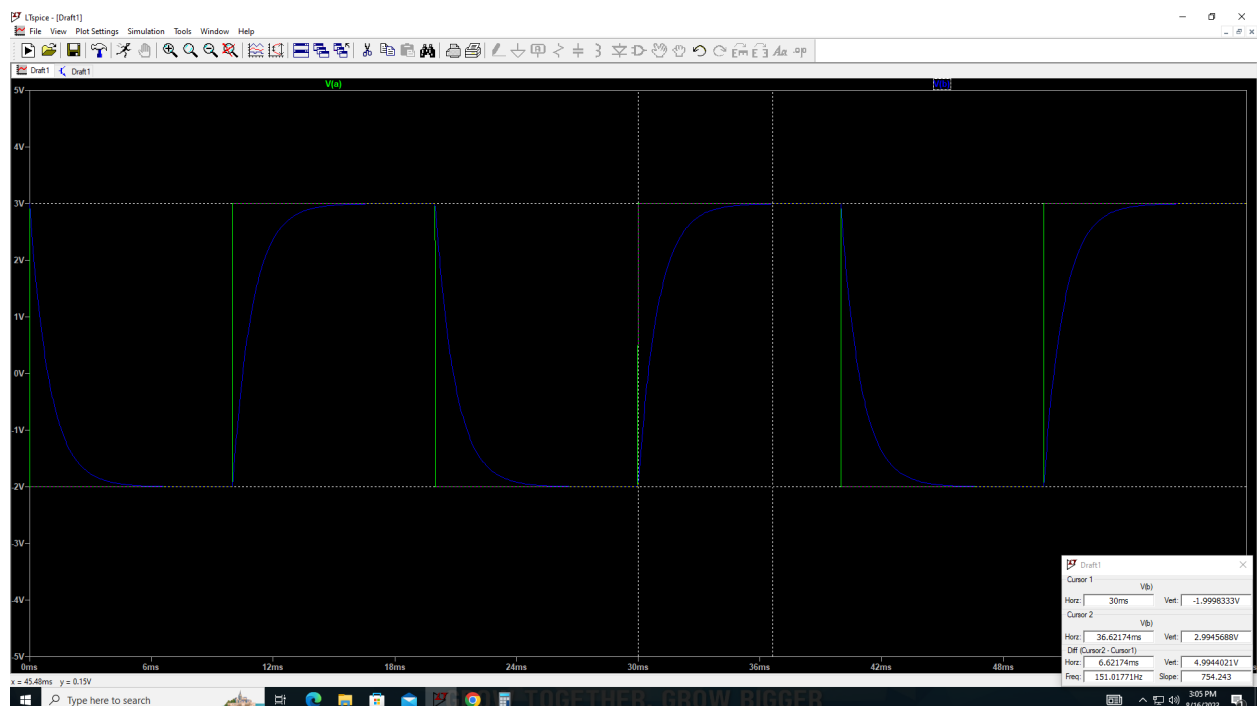
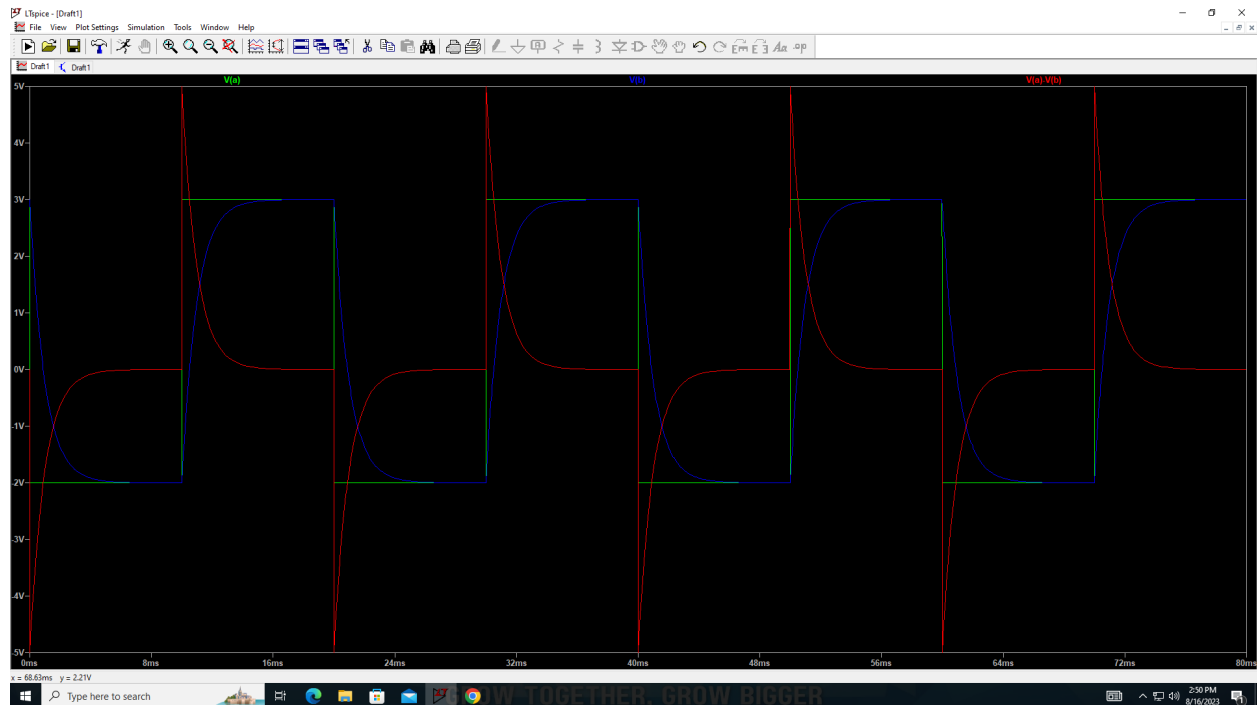


LAB-8

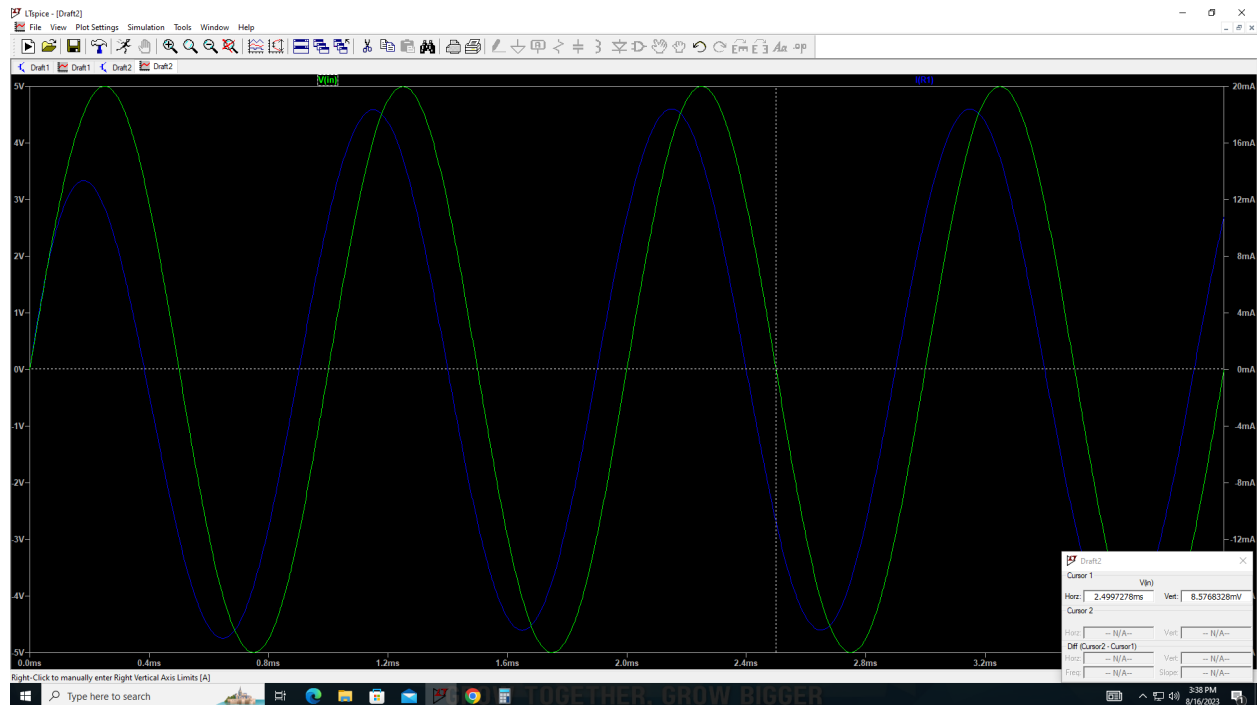


Time Difference= 36.62174-30

=6.62174

Time Constant= 36.62174

LAB-9



MAX:

$$I(R1)=18.406532\text{mA}$$

$$V(\text{in})=4.9987232\text{V}$$

Time Difference:

$$T1(V(\text{in}))=2.4997278\text{ms}$$

$$T2(I(R1))=2.3995645\text{ms}$$

$$t_{\text{diff}} = T1 - T2 = \mathbf{0.1001633\text{ms}}$$

$$\text{Phase Difference} = t_{\text{diff}} * f * 360$$

$$=0.1001633\text{s} * 1000 * 360$$

$$=\mathbf{36.058788 \text{ degree}}$$