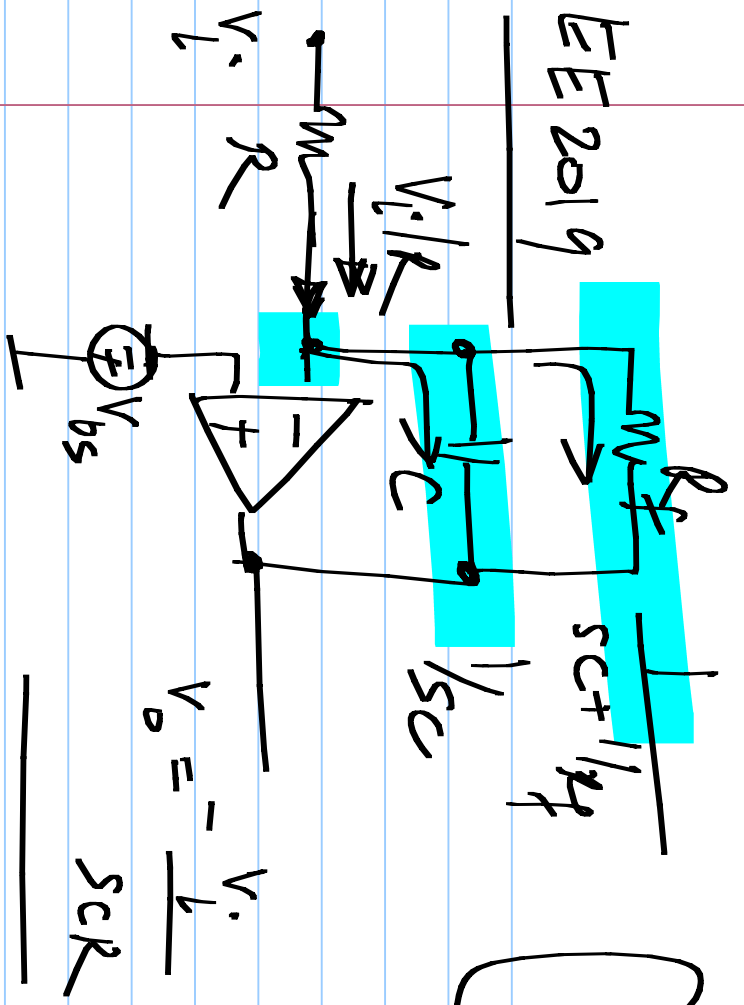


EE 2019

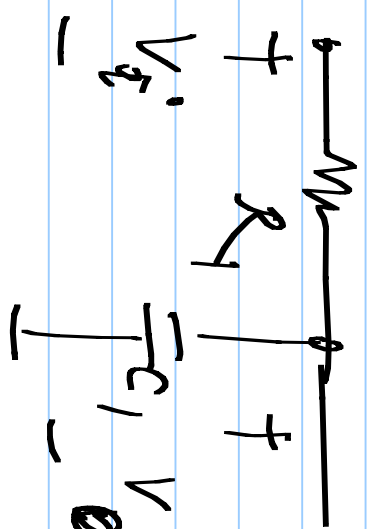
$$\left[-\frac{1}{sCR} \right]$$

3/2/2017



$$V_o = -\frac{V_i}{sCR}$$

$$\frac{V_o}{V_i} = -\frac{1}{R(sC + 1/R_f)}$$



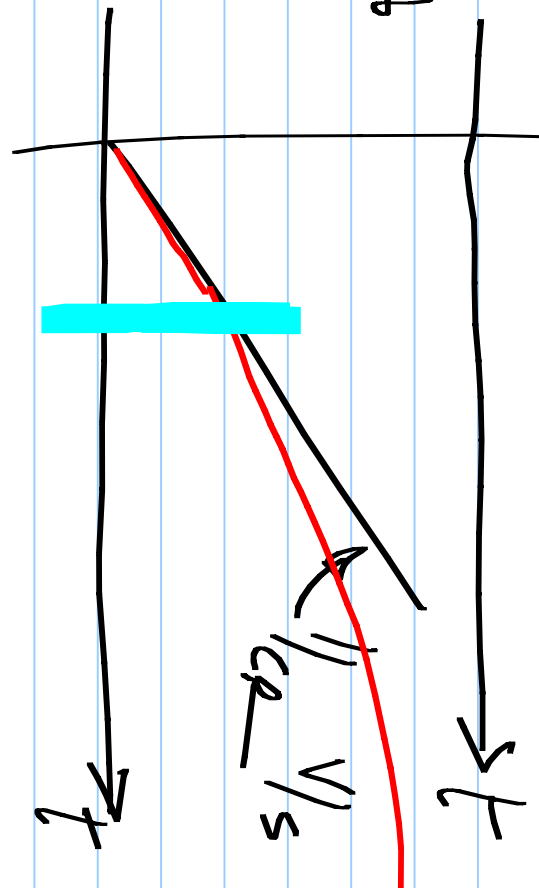
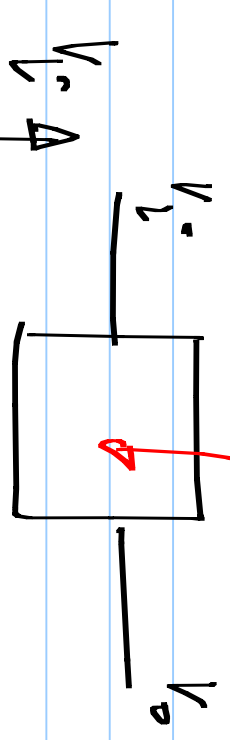
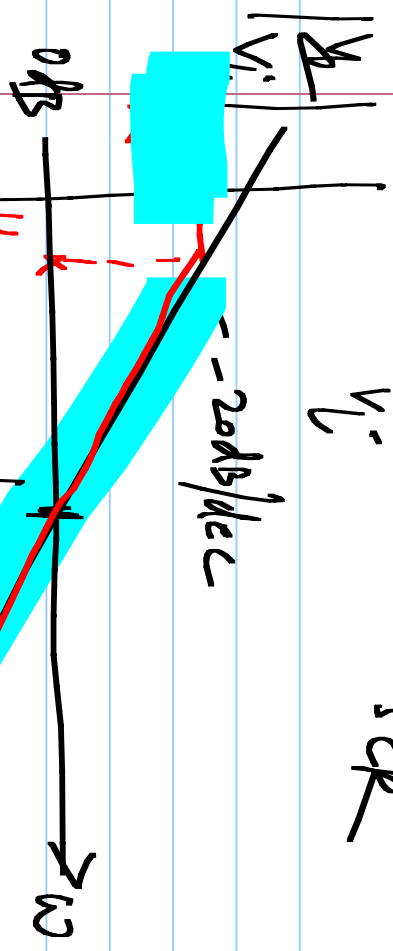
$$V_o = \frac{V_i}{1 + sCR}$$

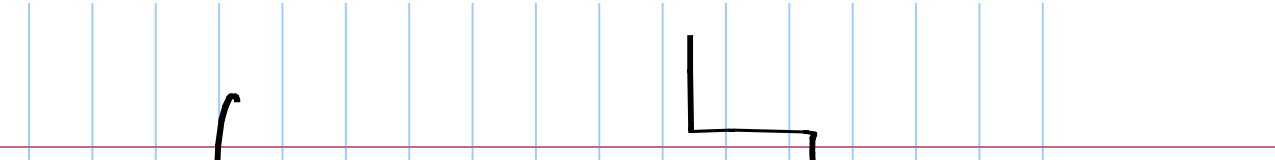
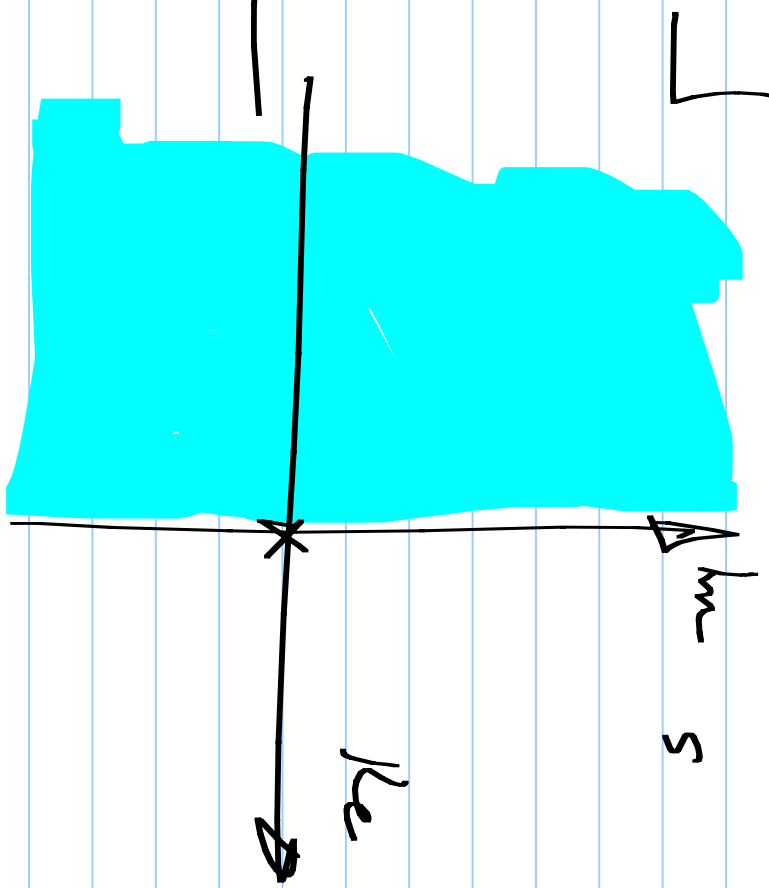
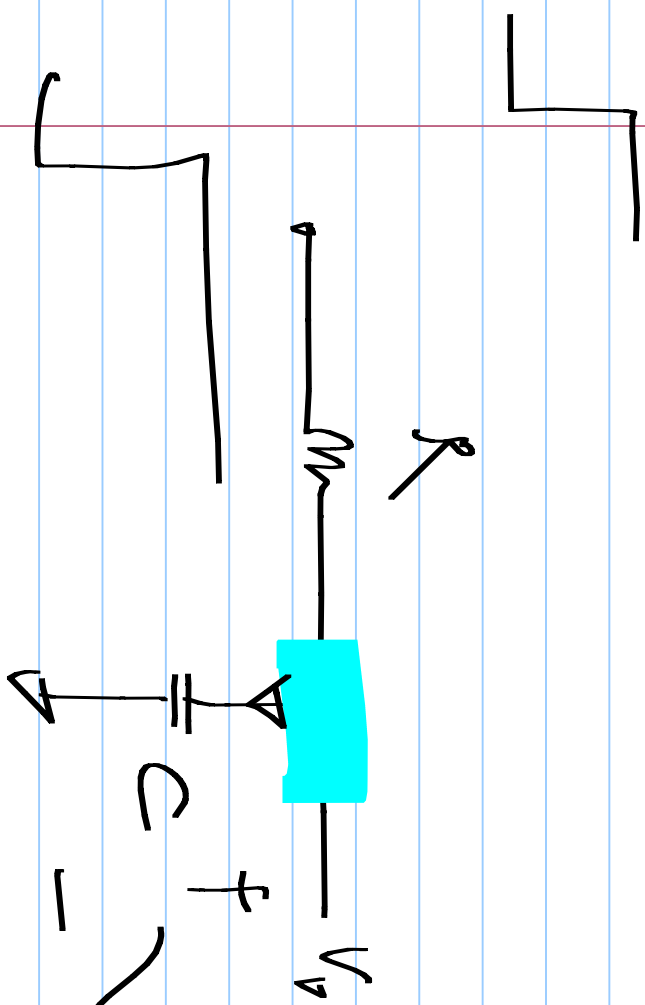
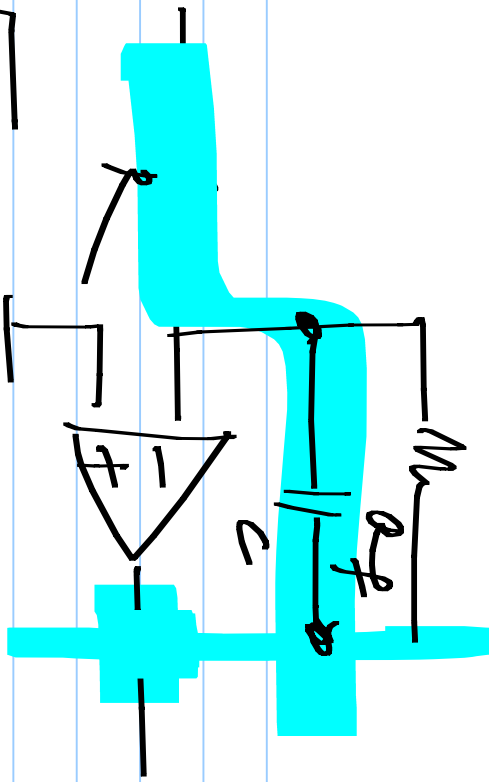
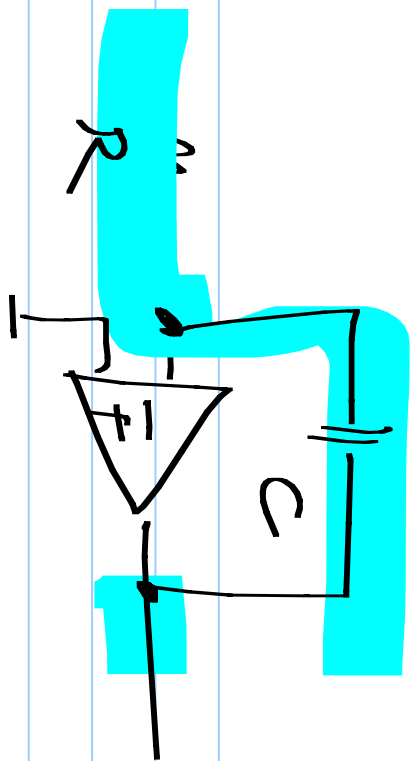
$$R_f \left(1 - \exp\left(-\frac{t}{R_f C}\right) \right)$$

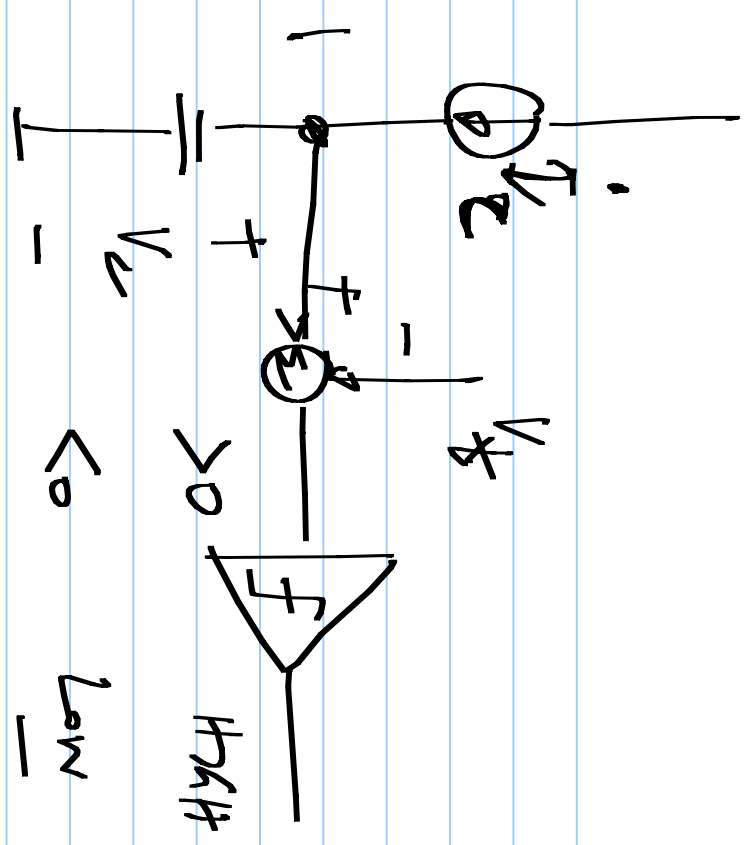
1) real: $\frac{V_o}{V_i} = \frac{1}{sCR}$

Real $\frac{V_o}{V_i} =$

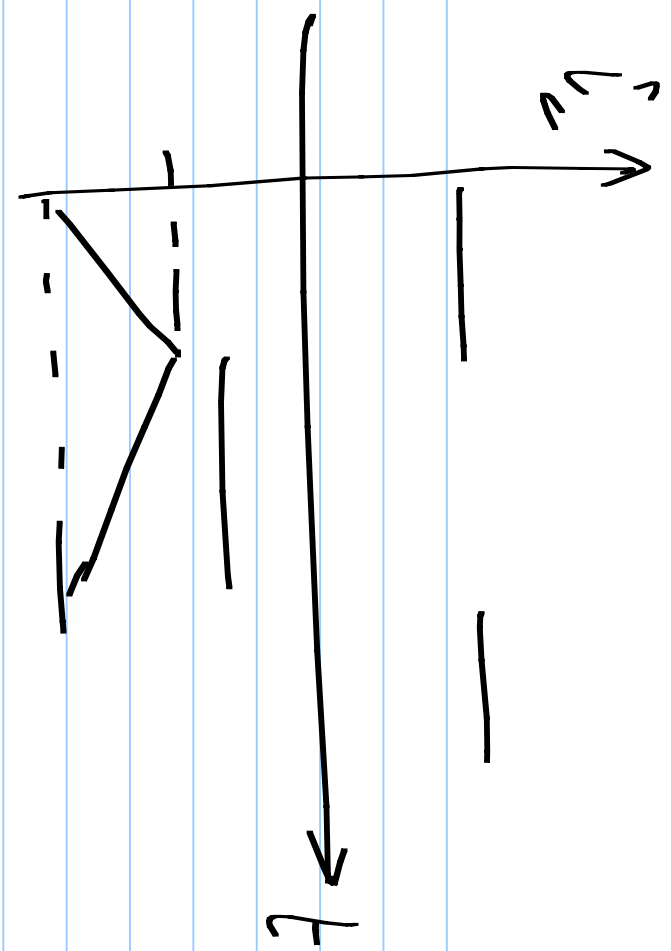
$R \times 1/R$





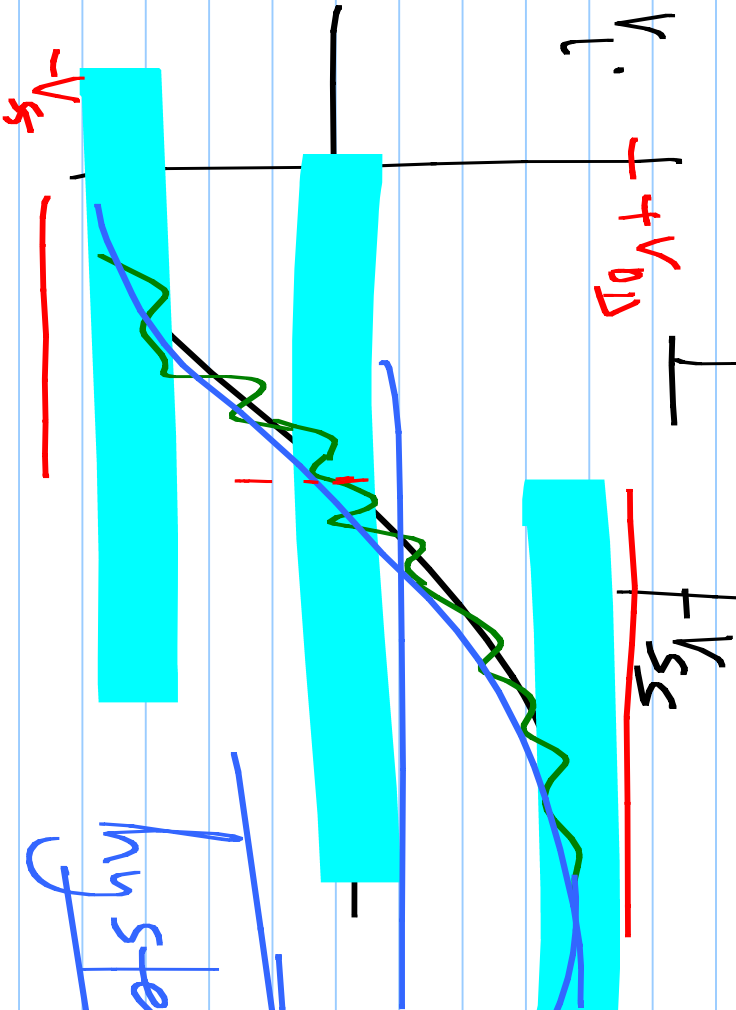
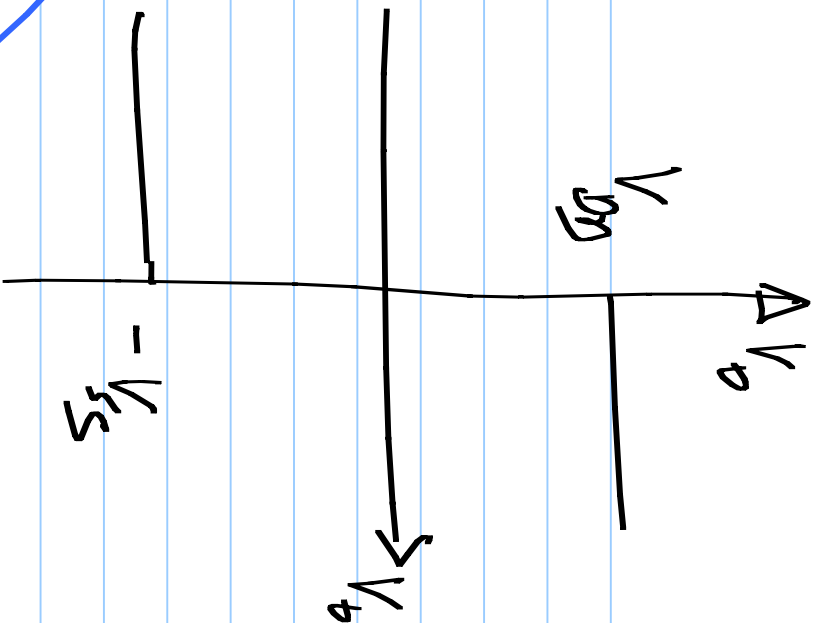
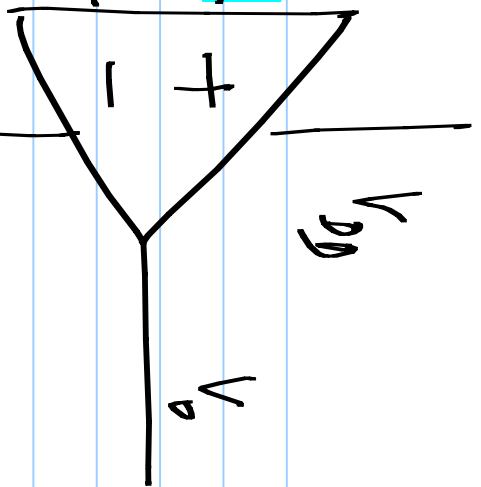


> 0
 < 0
 Low

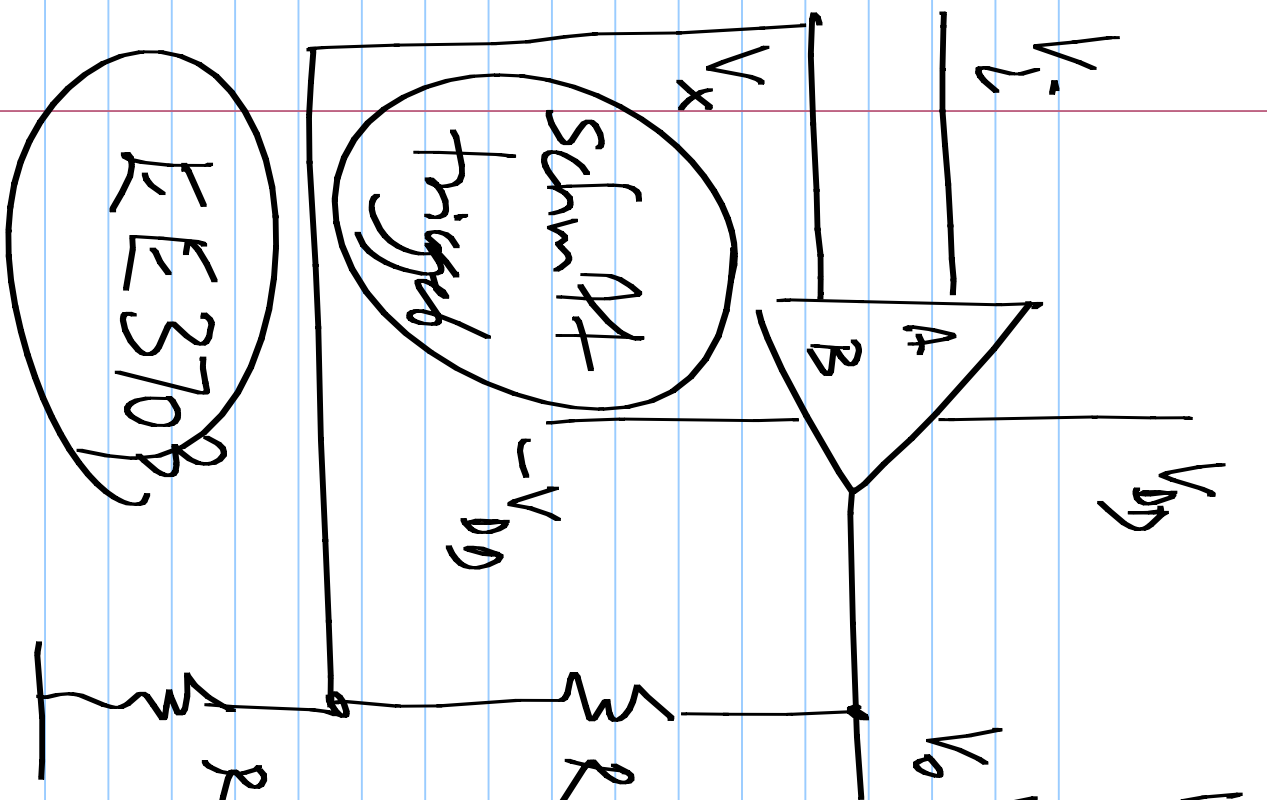


$$\text{Sign}(V_i - V_x)$$

$V_x > 0$
 $V_x < 0$



hysteresis



$$V_L > V_X > 0$$

$$V_0 < V_X < 0$$

When V_L is rising, look for $(V_L > V_X > 0)$

Find the sign. (A, B)

V_0 V_S V_L

R_1 R_2