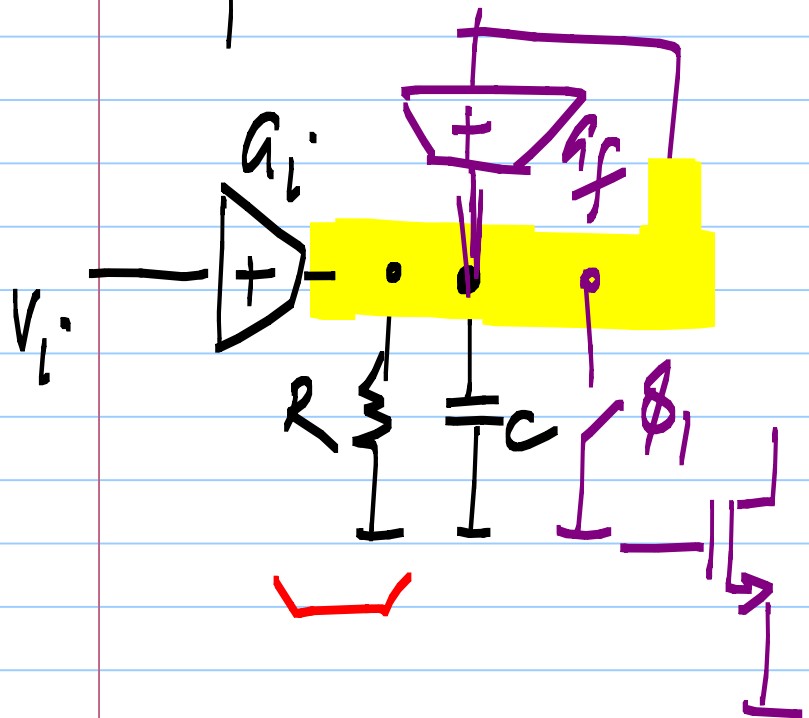
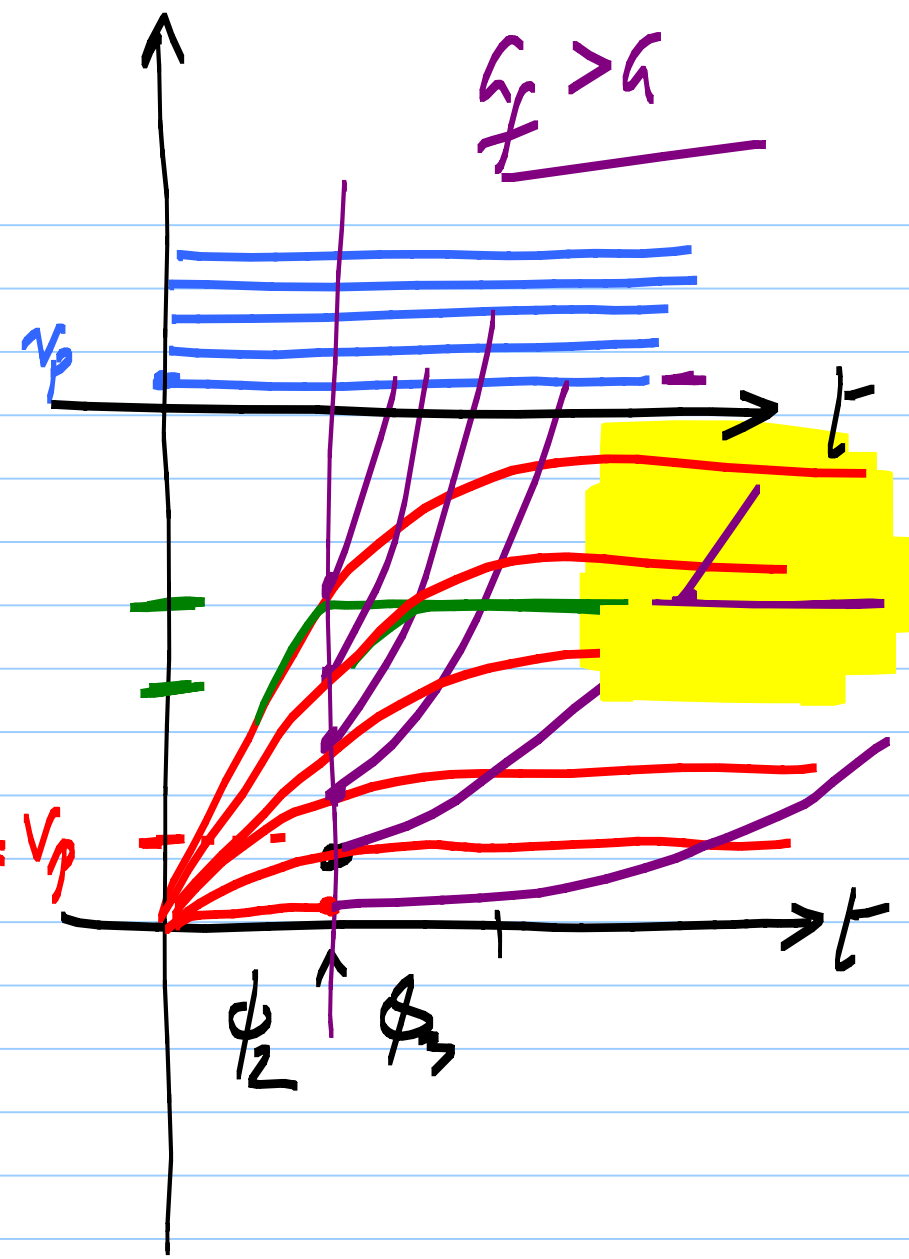
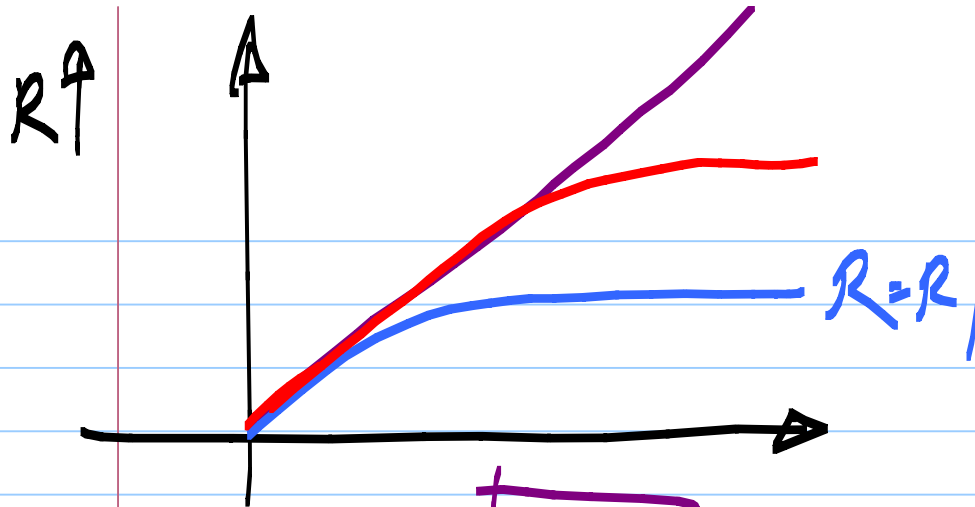
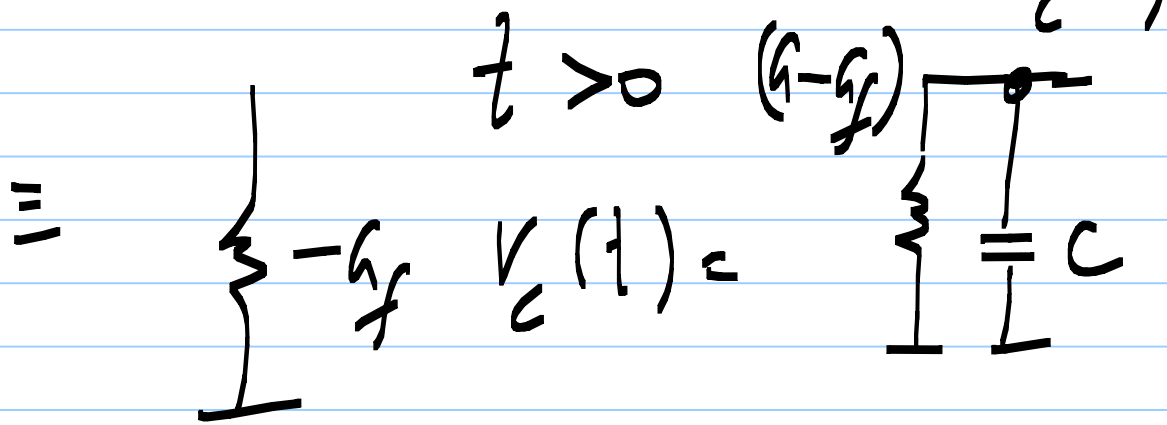
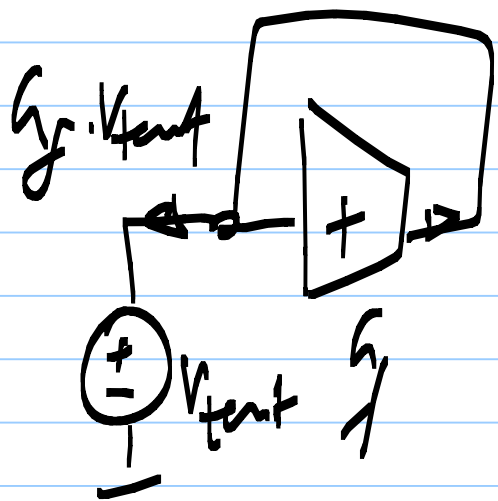
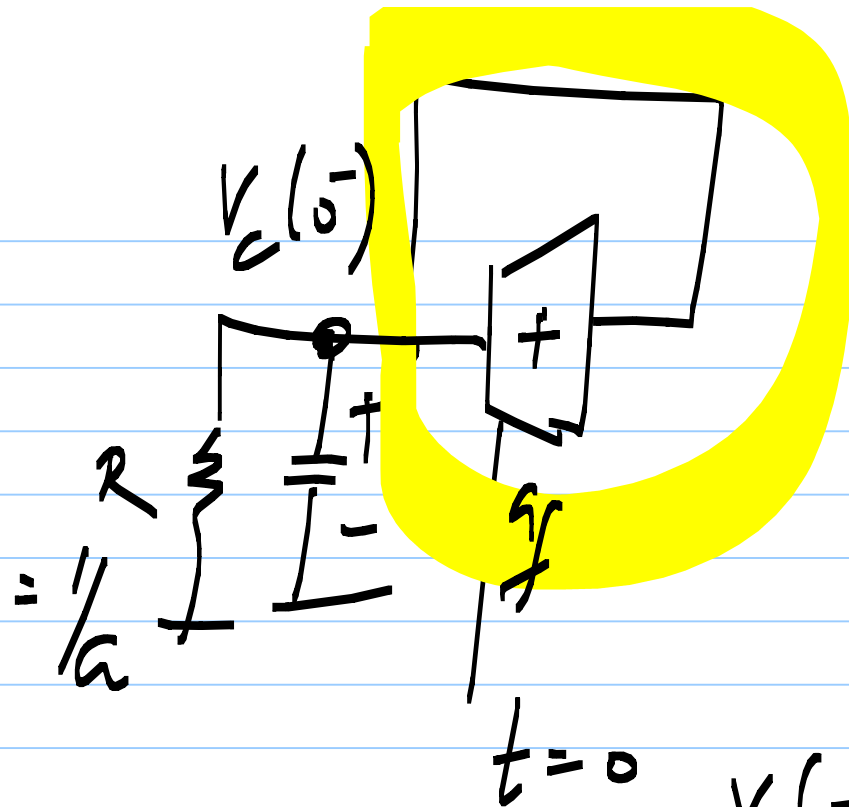
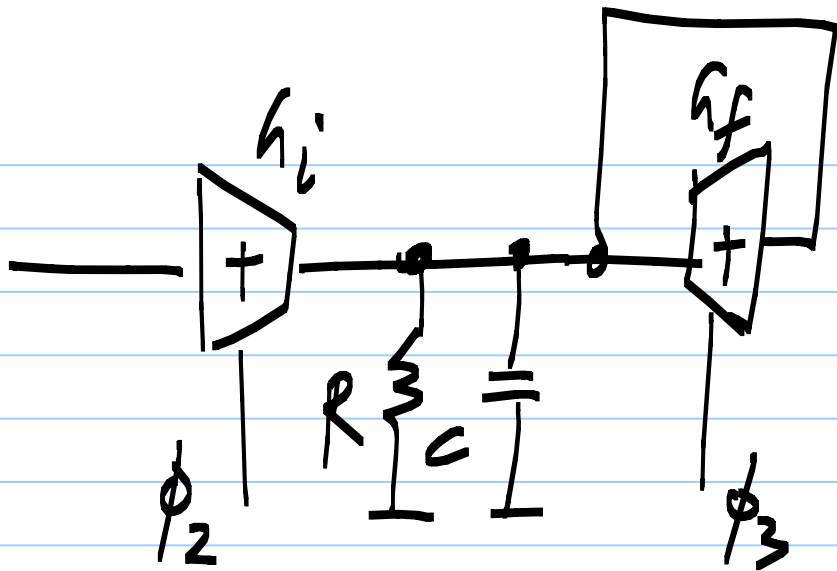


$g_m, C : 2x$

$R : 2x$

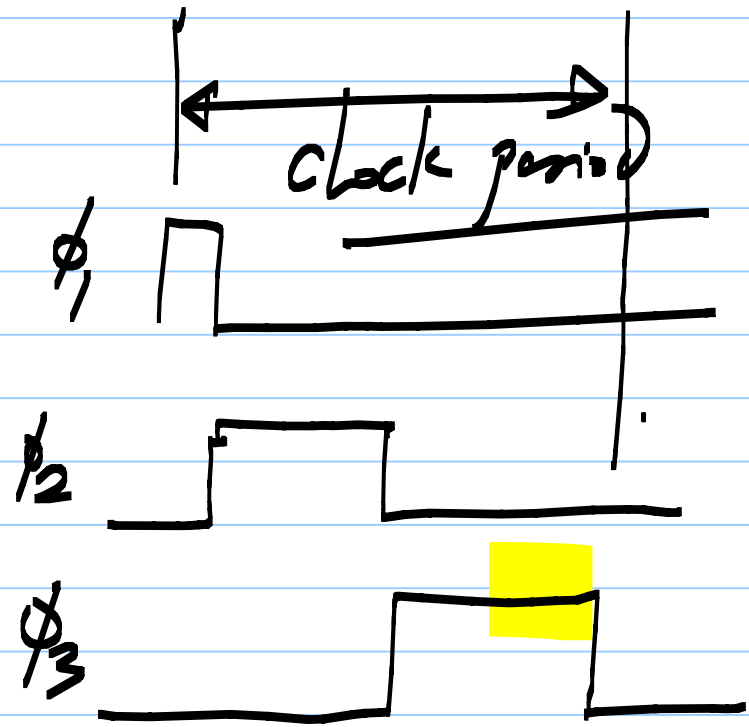
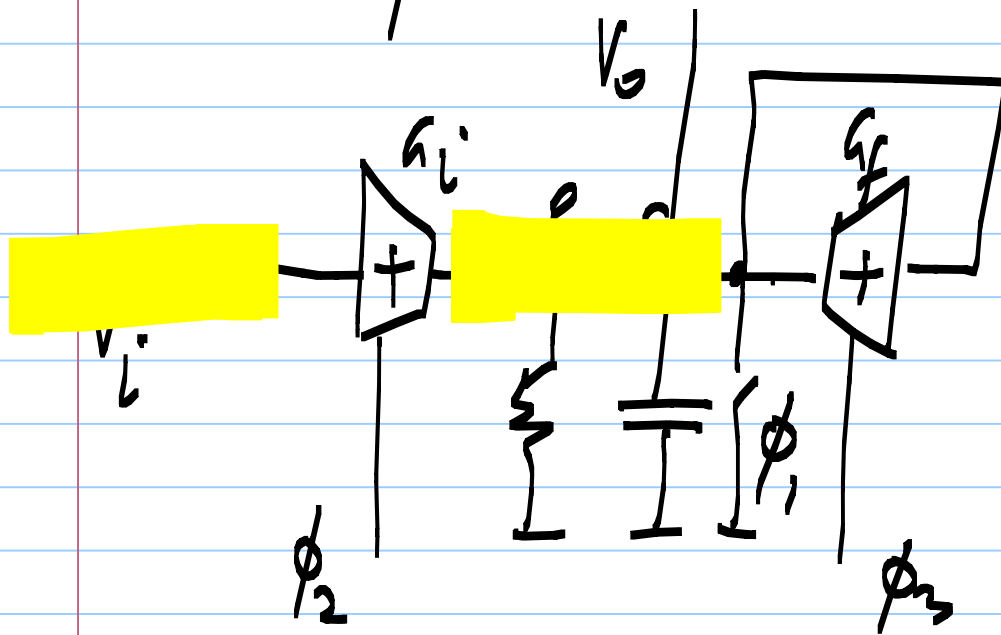


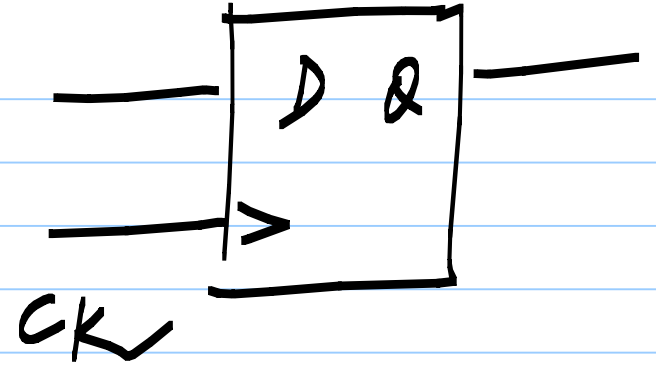
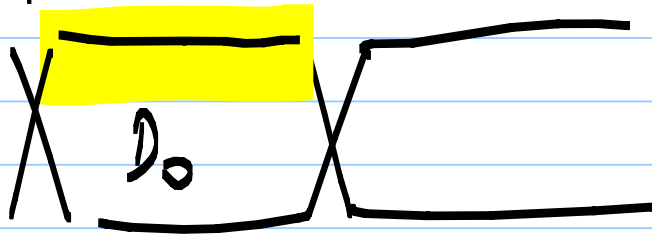
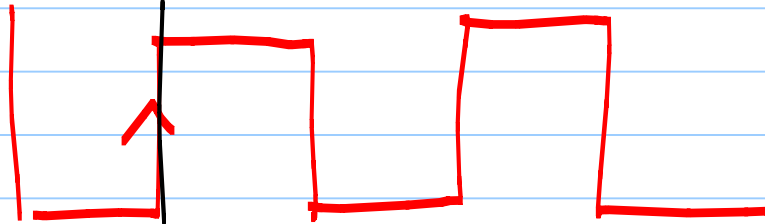
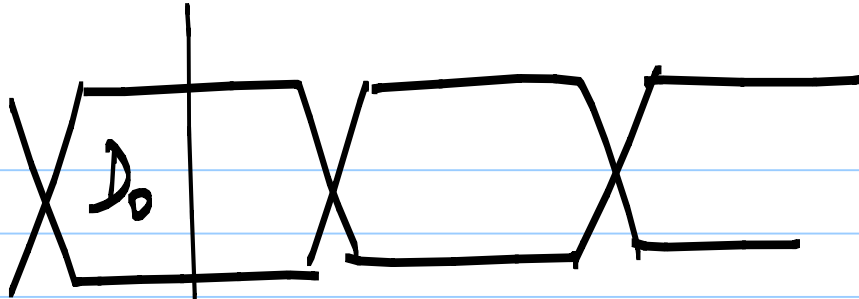
$G_i R \cdot V_p$



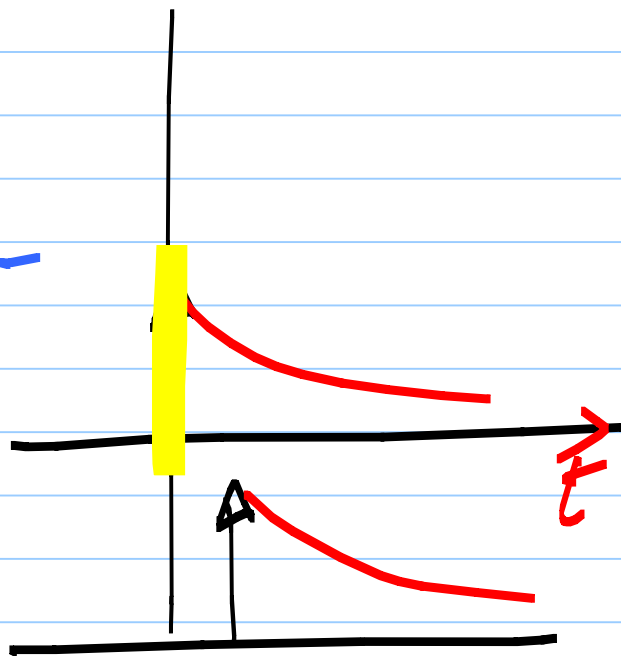
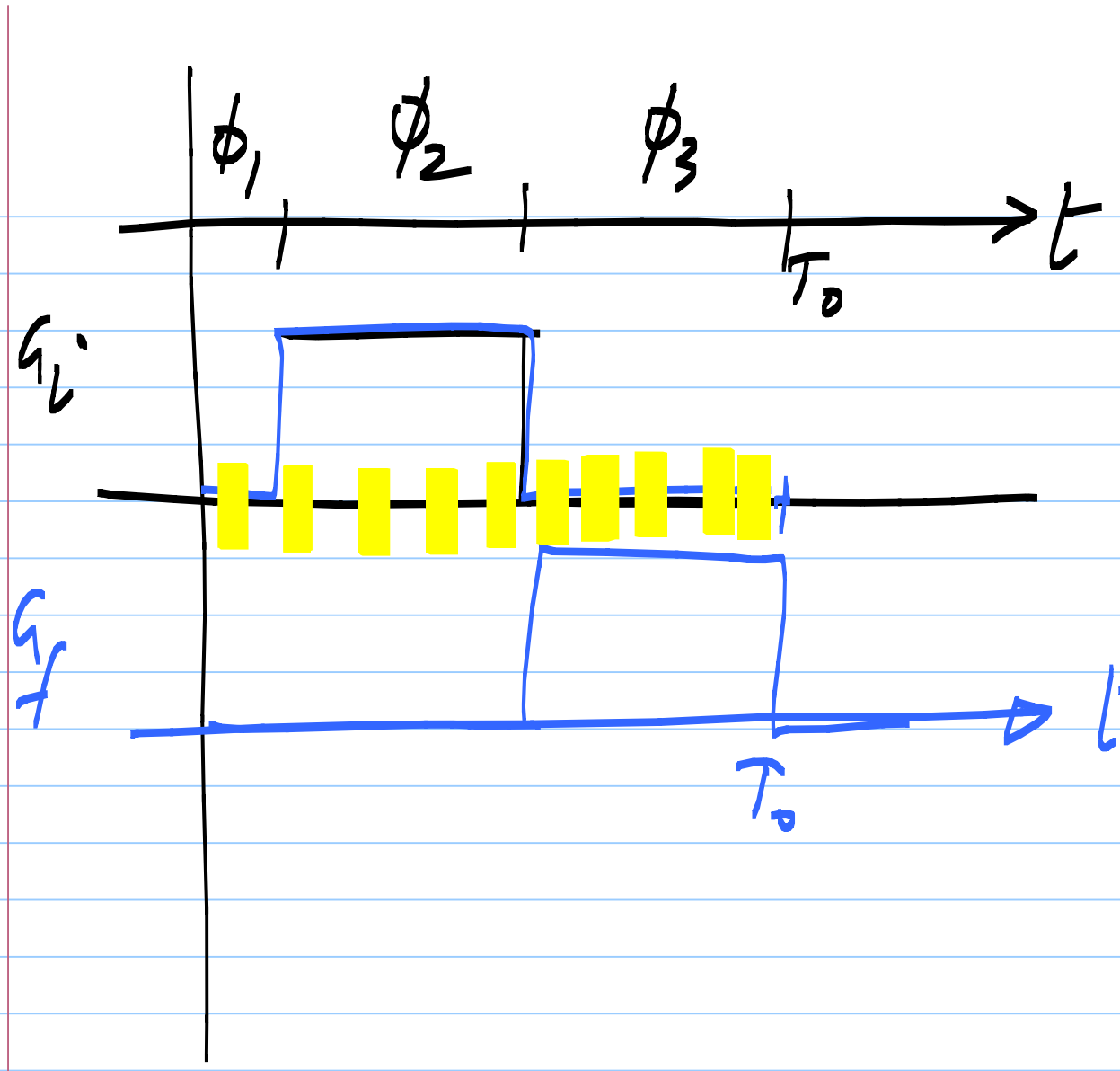
Regenerative latch: ($a_f > a$)

- * Regenerates any input to the rails
- * Output reaches the rails more quickly
- * Requires reset





Time-varying circuit



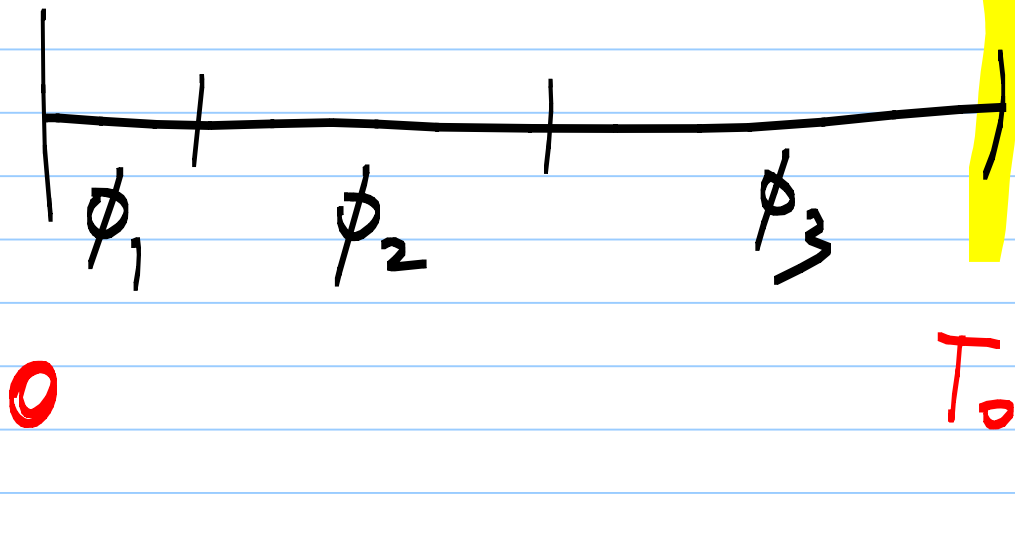
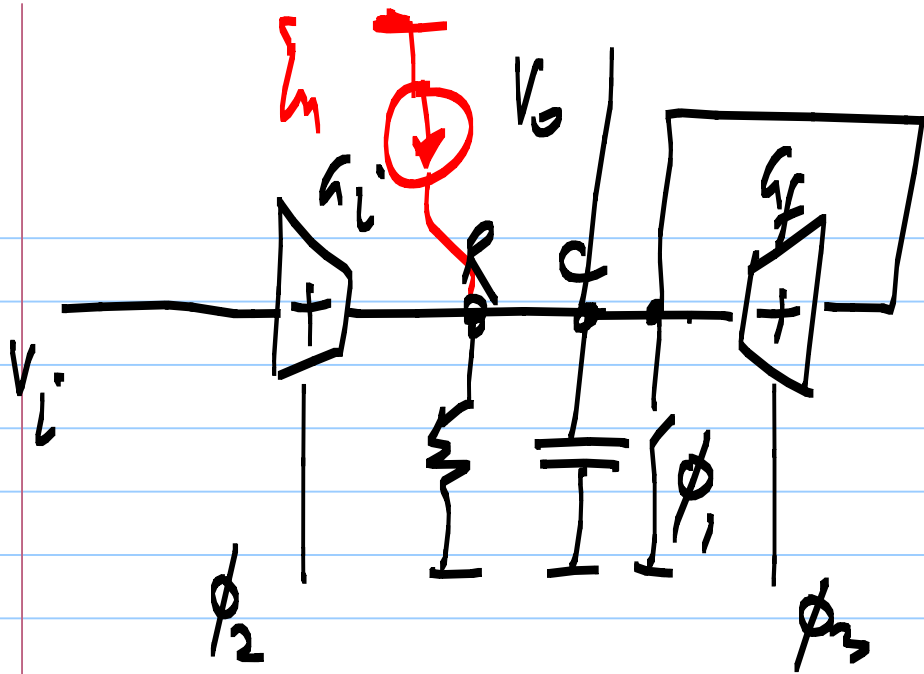
Impulse response of a linear circuit -
[Response to $\delta(t - \tau)$]
↑ launch time

is $h(t, \tau)$
↑

$$0 \leq \tau \leq T_0$$

Measurement time

For LTI : $h(t, \tau) = \underline{h(t - \tau)}$



Response to
 $h(t, \tau) : \delta(t - \tau)$
 v_i : input
 v_o : output

i_n : input
 v_o : output

$h(T_0, \tau)$