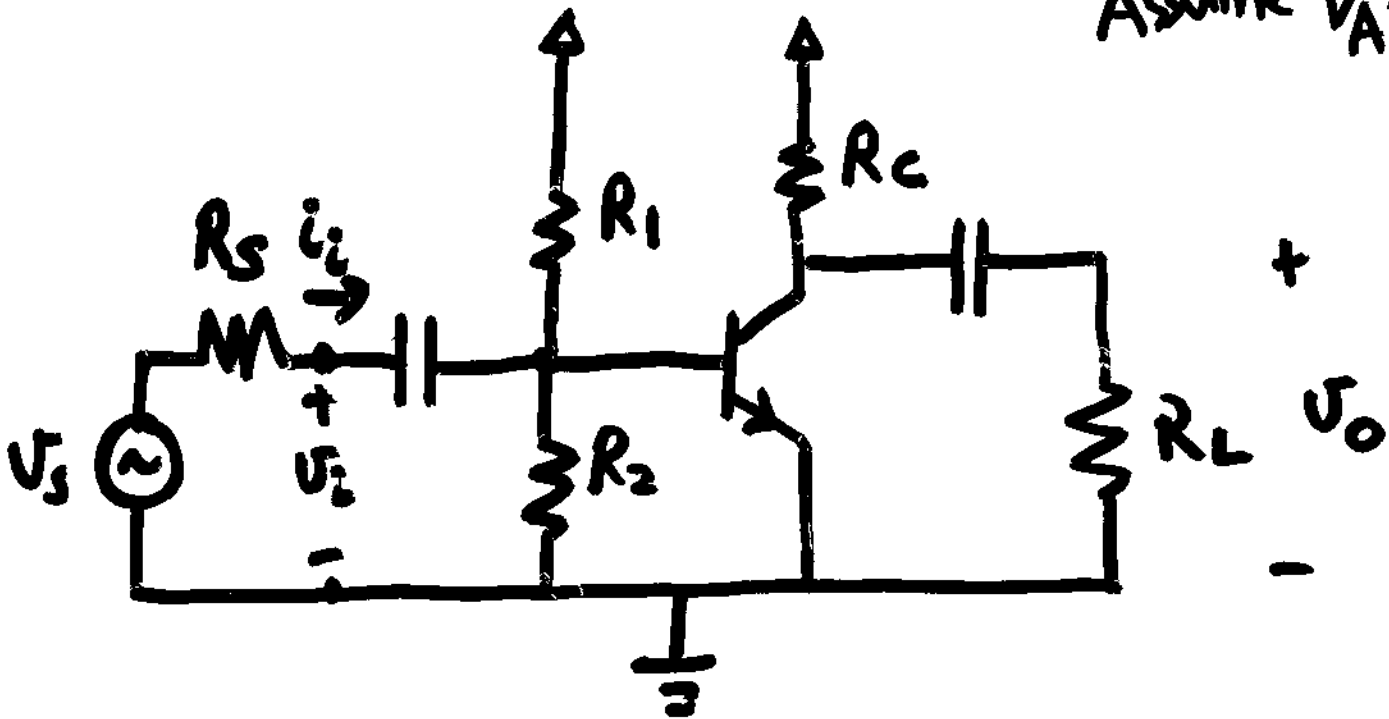
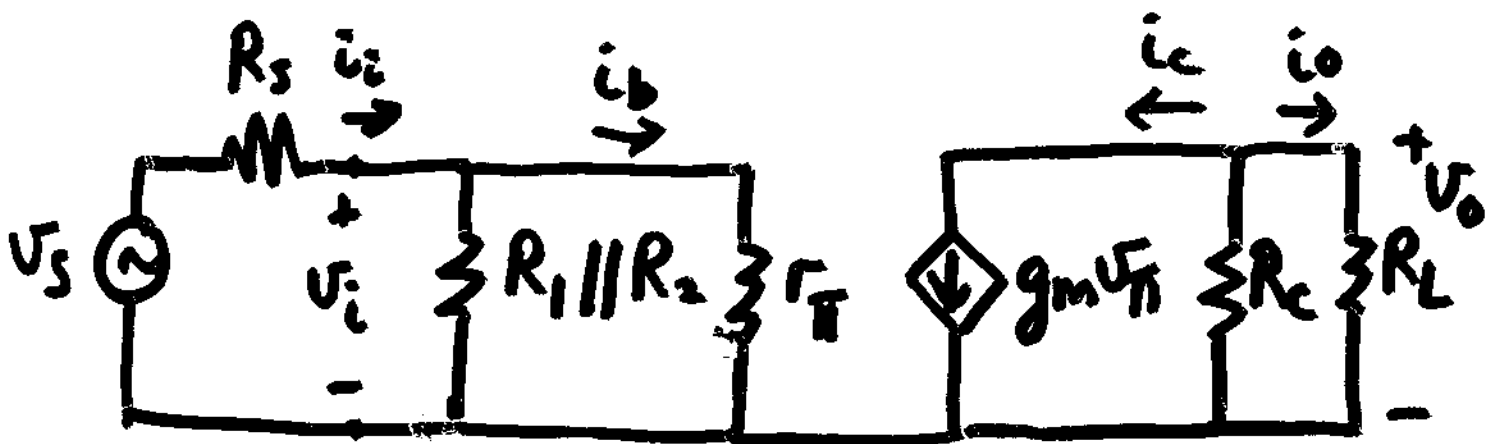


Common Emitter Amplifier

Assume $V_A = \infty$



a.c. Model



$$v_o =$$

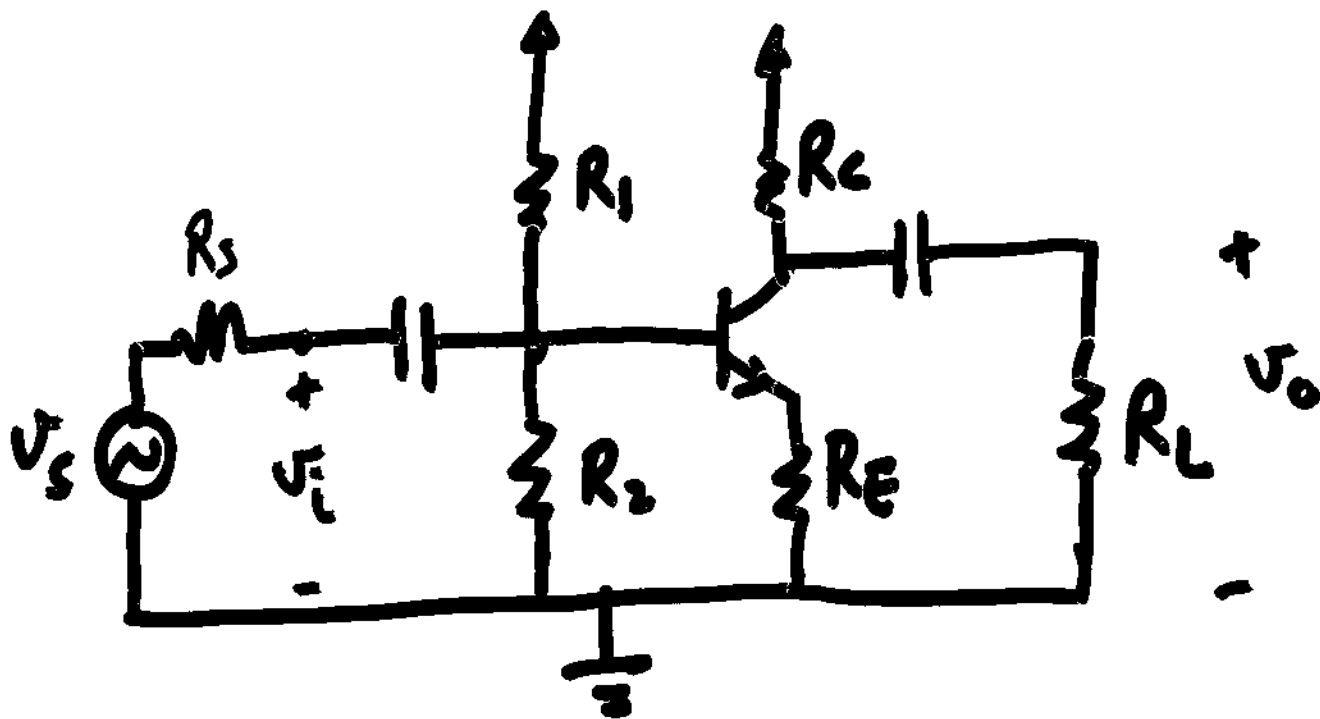
$$A_{i_i} =$$

$$v_i =$$

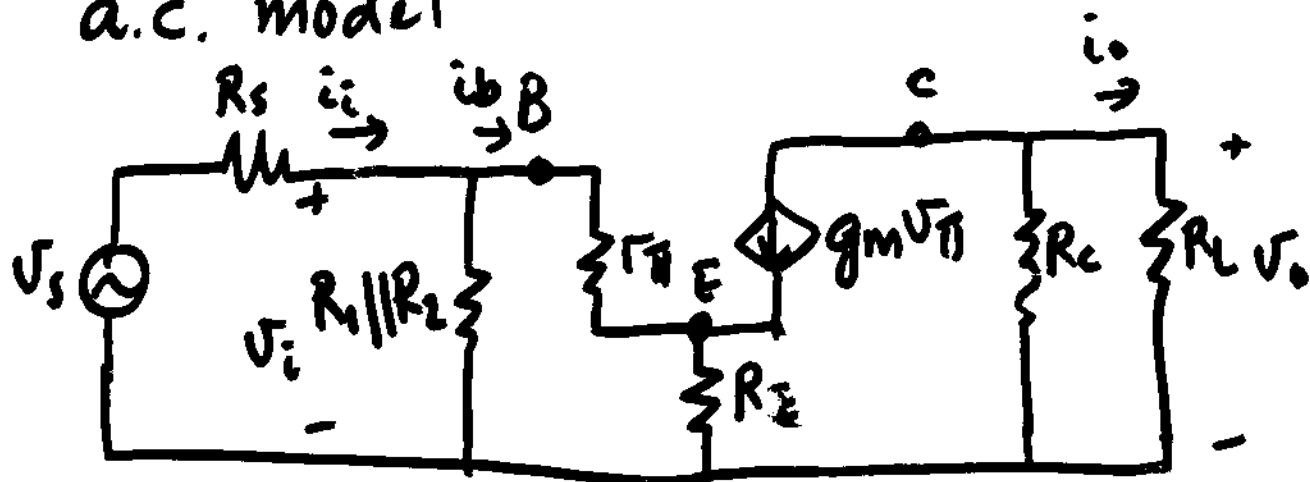
$$A_{p_i} =$$

$$A_{v_i} =$$

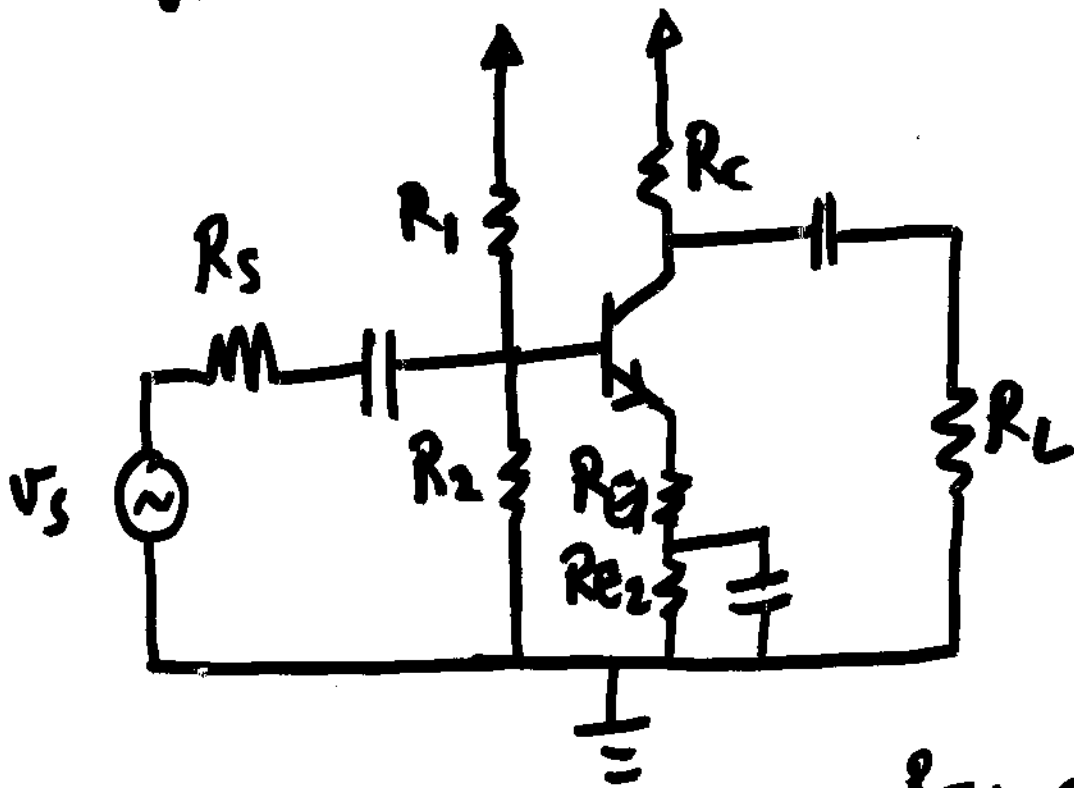
With R_E (Degeneration resistor)



a.c. model



With bypass capacitor



R_{E1} small
 R_{E2} large
(for biasing)