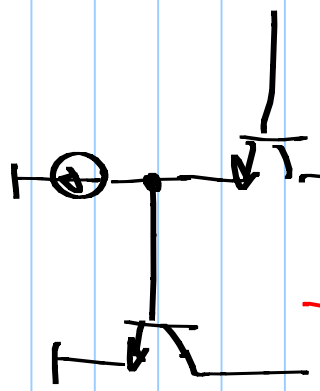


$$R_{in} = r_{\pi} + R_L(\beta + 1)$$

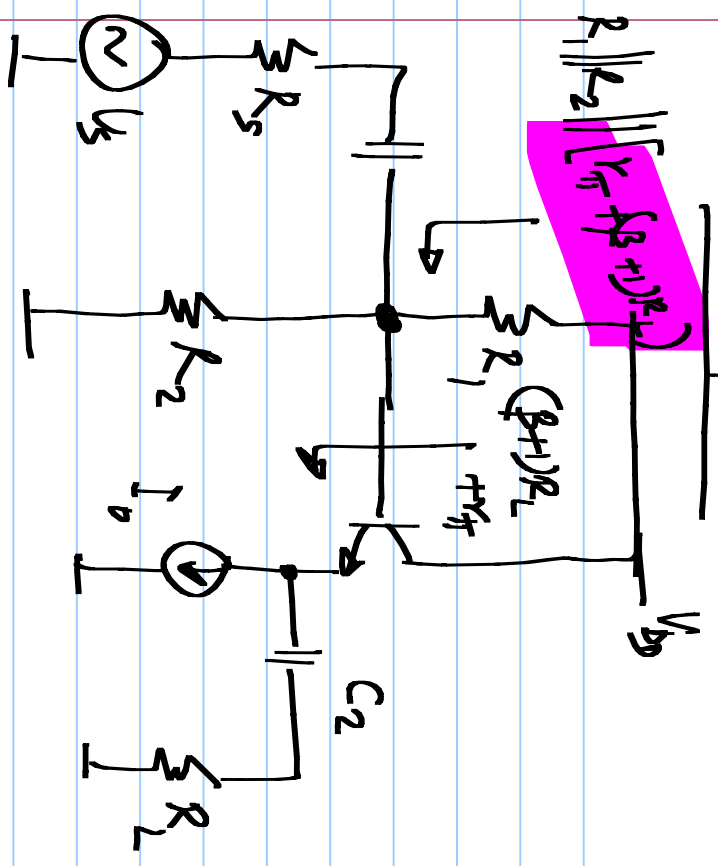
$$R_{out} = \frac{r_{\pi} + R_s}{\beta + 1} = \left[ \frac{r_{\pi} + R_s}{g_m r_{\pi} + 1} \right]$$

Emitter follower CS amp.

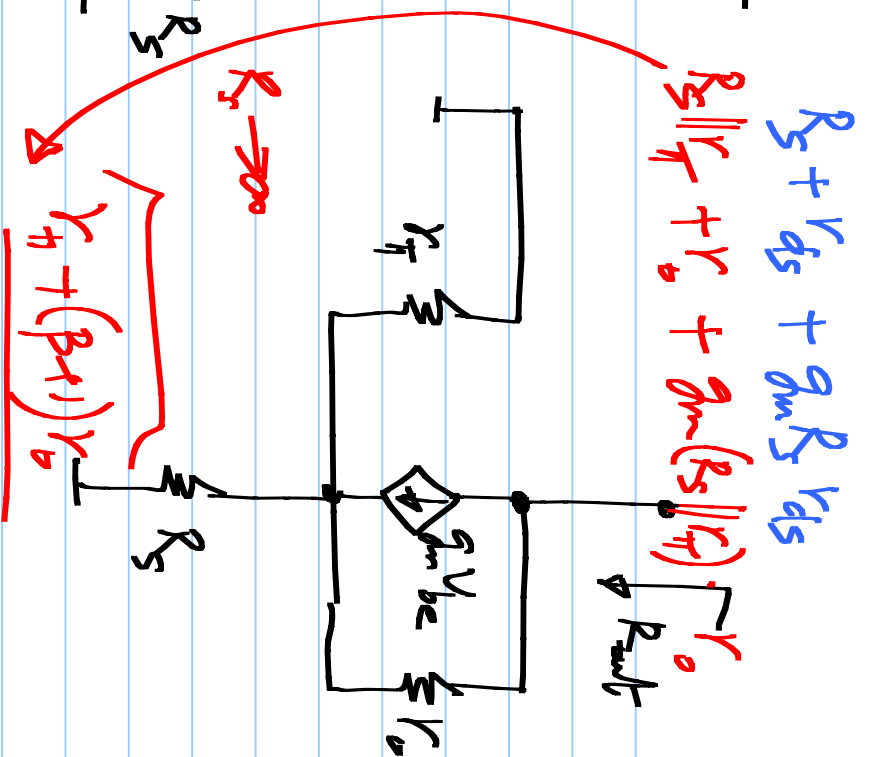
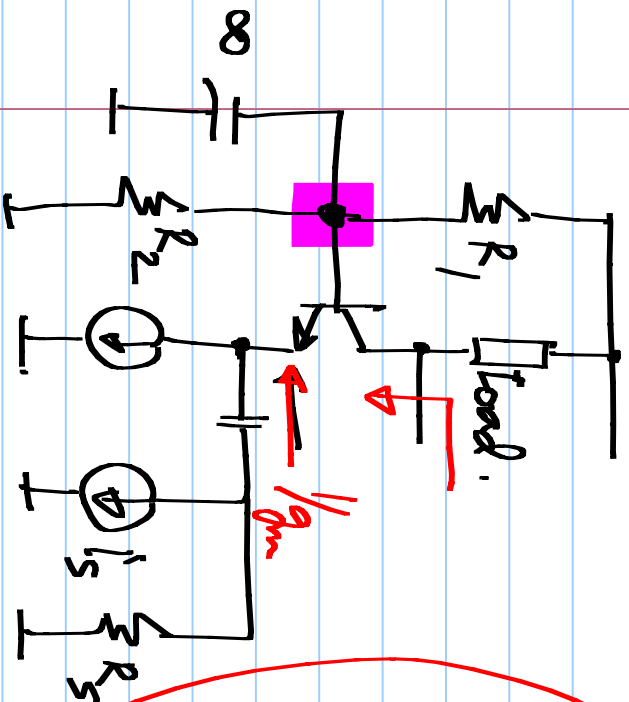


Emitter follower

Bootstraping



# Common gate amplifier



VCVS (Emitter follower)

Similar  
input properties

VCCS

CCVS (Drain fb. ckt)

Similar op  
properties

CCCS (Common base amp).

