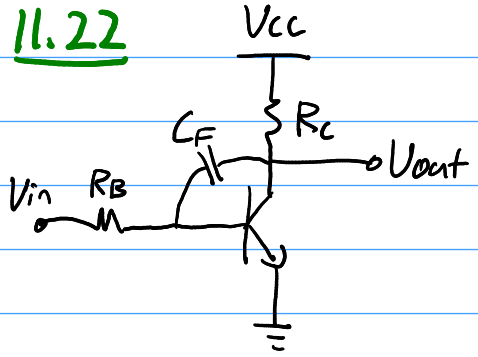
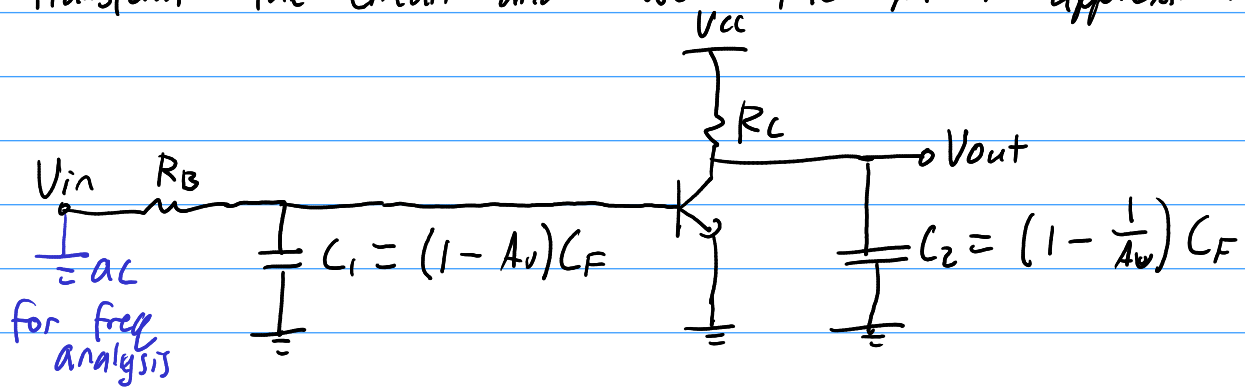
11.22



$V_A = \infty$

Find the poles.
Notice $A_v = -g_m R_C$.

Transform the circuit and use the Miller approximation:



Input pole: $\omega_1 = \frac{1}{R_B C_1} = \frac{1}{R_B C_F (1 + g_m R_C)}$

large C ∴ Low freq pole.

Output pole: $\omega_2 = \frac{1}{R_C C_2} = \frac{1}{R_C C_F \left(1 + \frac{1}{g_m R_C}\right)}$

Smaller multiplication

For reasonable component values, ω_1 is probably the dominant pole (i.e. at lower frequencies).

Having 2 poles is an artefact of the Miller approx, so neglect ω_2.