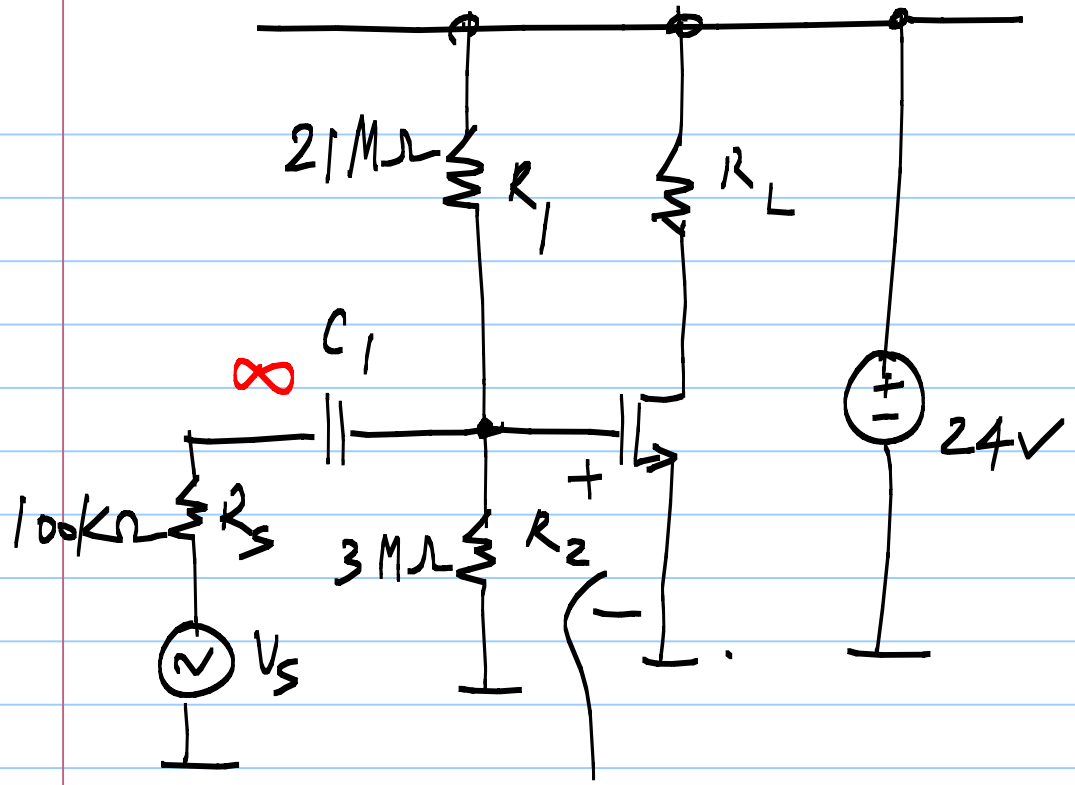
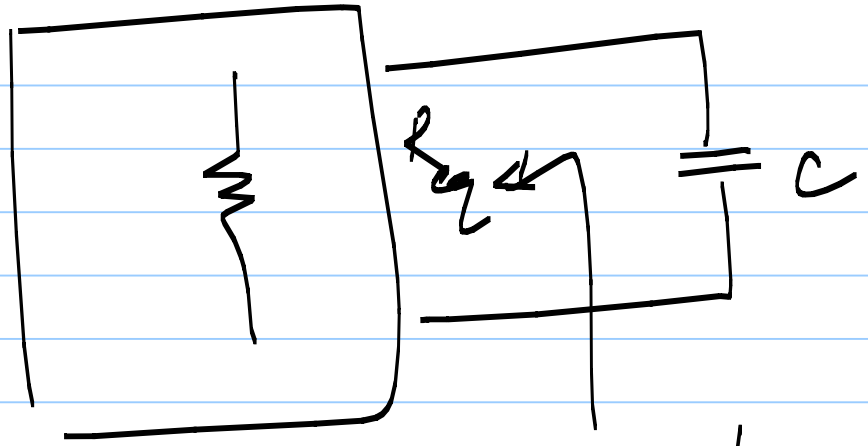


$$\frac{V_{gs}(s)}{V_s(s)} = \frac{s C_1 (R_1 \| R_2)}{1 + s C_1 \left[R_s + R_1 \| R_2 \right]}$$

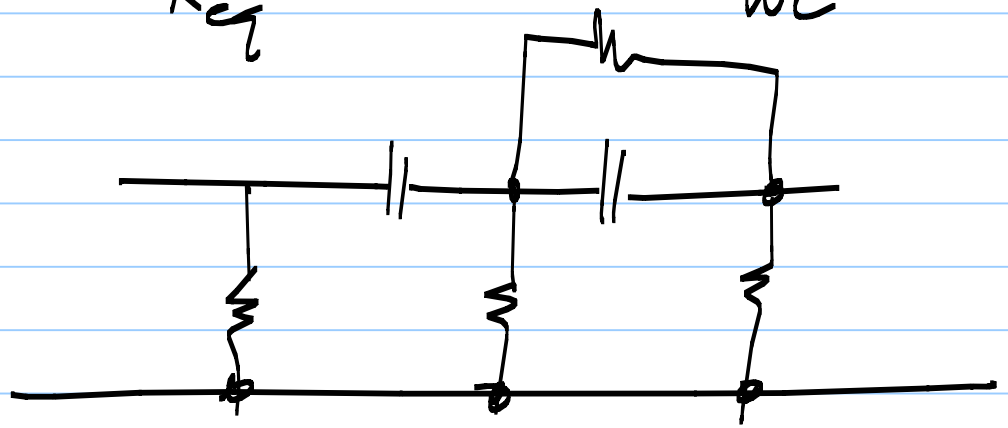
$$\frac{1}{\omega C_1} \ll R_s + (R_1 \| R_2)$$

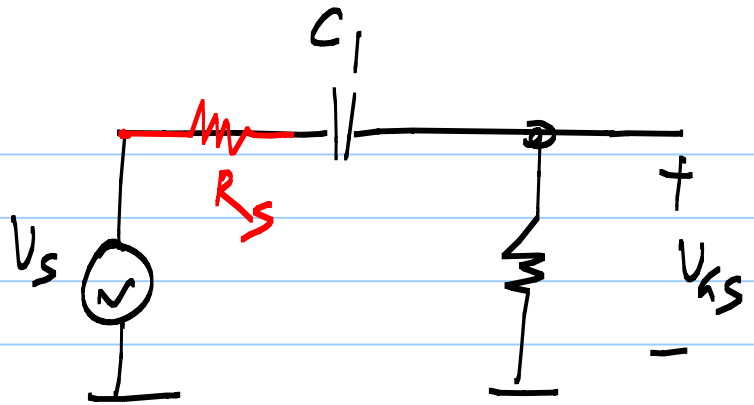
$$C_1 \gg \frac{1}{\omega (R_s + R_1 \| R_2)}$$

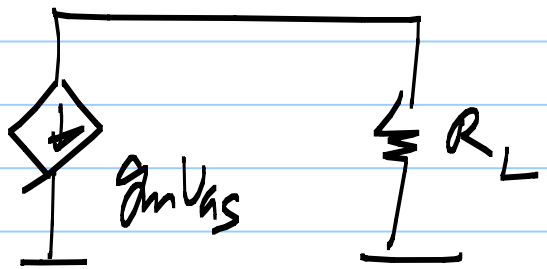
$$\frac{1}{\omega C_1} \ll (R_1 \| R_2)$$

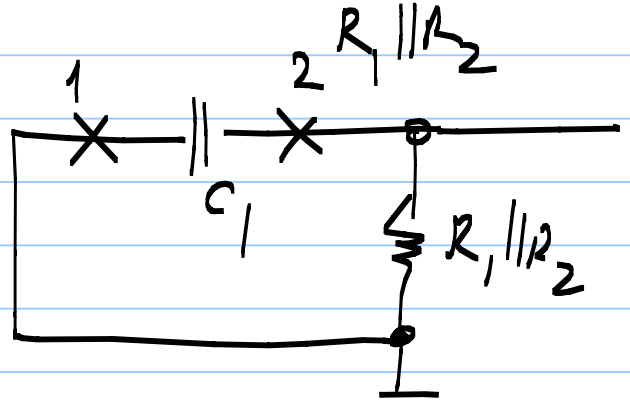


$$R_{eq} \cdot C \qquad \frac{1}{\omega C} \ll R_{eq}$$

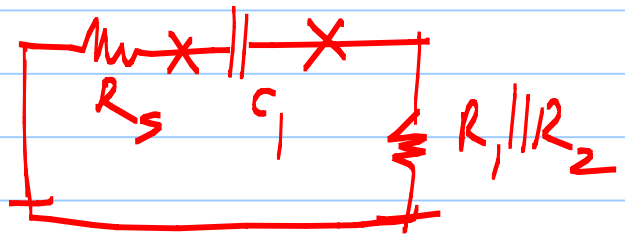




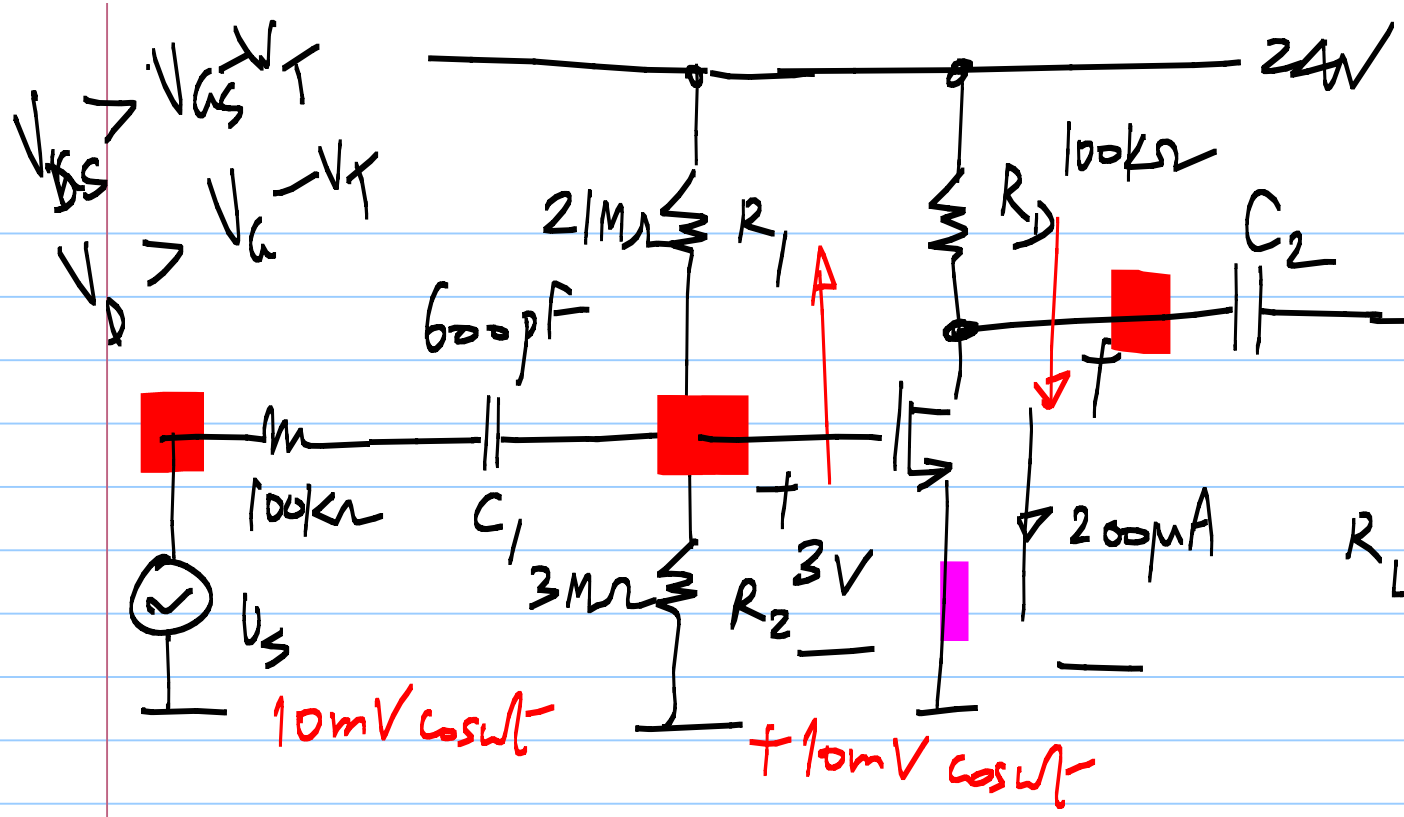




$$\frac{1}{\omega C_1} \ll R_1 \| R_2$$



$$\frac{1}{\omega C_1} \ll R_S + (R_1 \| R_2)$$



$$C_2 \gg \frac{1}{2\pi \cdot 10^3 \cdot 2 \cdot 10^5}$$

$$\frac{1}{4\pi \cdot 10^8}\ F$$

$$\frac{10\,nF}{4\pi}$$

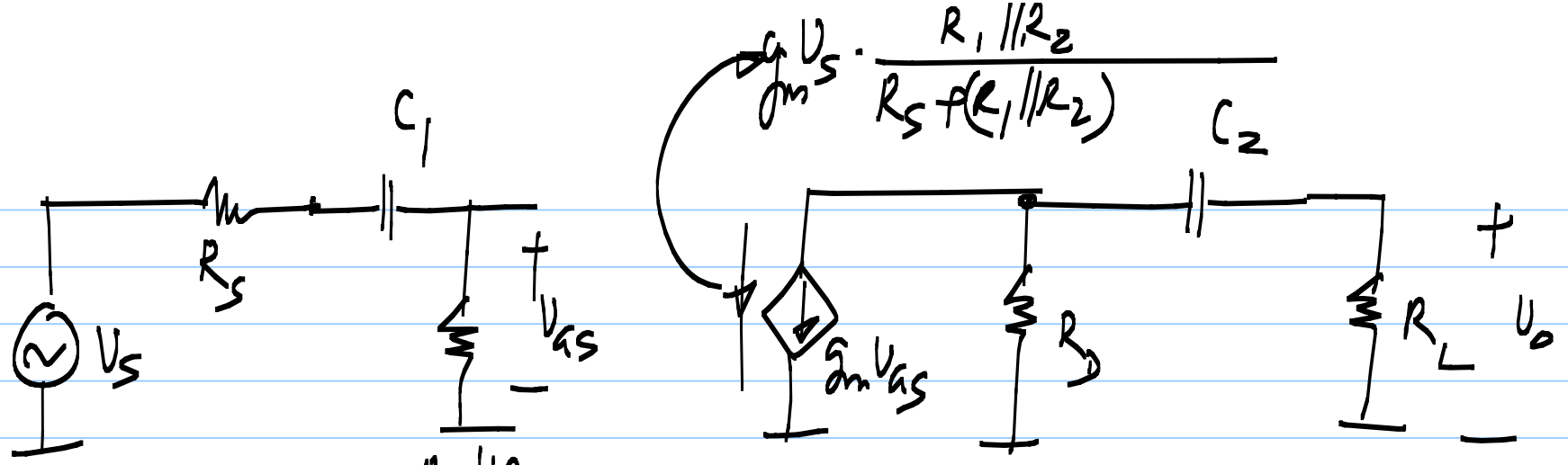
$$0.8\,nF$$

$f = 1\,kHz$

CD4007

$$C_1 \gg \frac{}{2\pi \cdot 10^3\ rad/s \cdot 2.7M\Omega} = 60pF$$

$C_1 = 60pF$ / $1nF$



$$\frac{1}{\omega C_1} \ll R_s + (R_1 \| R_2) \qquad \frac{1}{\omega C_2} \ll (R_D + R_L)$$

$$\frac{V_o}{V_s} = -g_m \cdot \frac{R_1 \| R_2}{R_s + (R_1 \| R_2)} \cdot (R_D \| R_L)$$