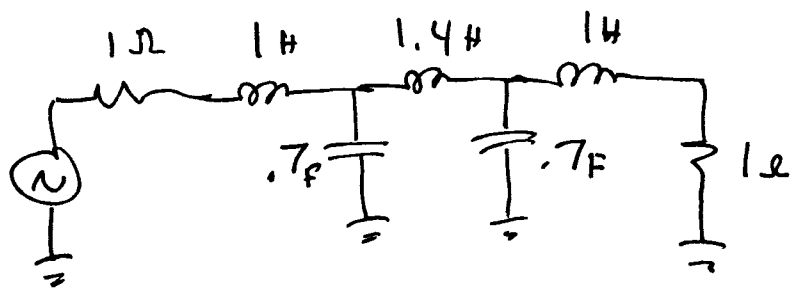


Using your class notes as a reference ---

Determine the transfer function for a filter ---

Low pass:  $f_p = 3 \text{ kHz}$   $\alpha_p = 2 \text{ dB}$   
 $f_s = 6 \text{ kHz}$   $\alpha_p = 40 \text{ dB}$

Here's a normalized filter  $\omega = 1$   
 $R = 1$



Scale it to  $\omega = 1000$   $R = 100$

Design a high pass filter

Pass:  $f > 100 \text{ Hz}$  within 2 dB

Reject  $f < 20 \text{ Hz}$  at least 30 dB

Design the actual filter, using an equal component value design, with op-amps.