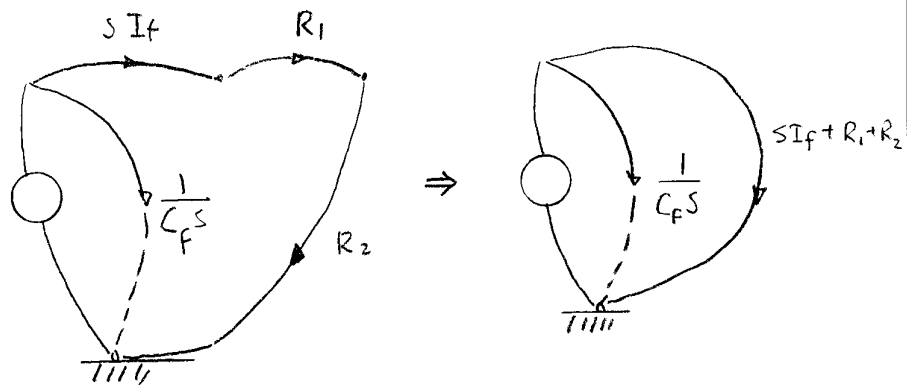
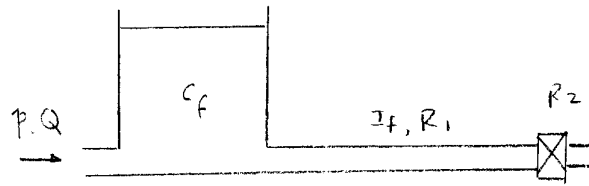




Hence

$$\frac{1}{Z(s)} = \frac{1}{1/C_f s} + \frac{1}{sI_f + R_1 + R_2}$$

$$= \frac{C_f s (sI_f + R_1 + R_2) + 1}{sI_f + R_1 + R_2}$$

$$Z(s) = \frac{sI_f + R_1 + R_2}{C_f s (sI_f + R_1 + R_2) + 1}$$

$$= \frac{sI_f + R_1 + R_2}{C_f I_f s^2 + (R_1 + R_2) C_f s + 1}$$