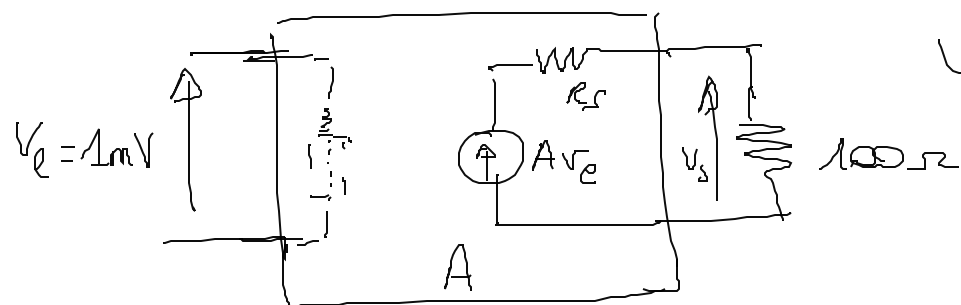


$$A_0 = 40 \text{ dB} \Rightarrow A_0 = 10^{\frac{40}{20}} = 10^2 \Rightarrow A(f) = \frac{A_0}{1 + jf/f_c}$$

3)



$$V_s = 31 \text{ mV}$$

$$V_s = A_{ve} \cdot \frac{100}{100 + R_s} \Rightarrow (R_s + 100) = \frac{A_{ve} \cdot 100}{V_s}$$

$$R_s = \frac{A_{ve} \cdot 100}{V_s} - 100$$

in BF $A(f) = A_0 = 100.$

$$R_s = \frac{100 \cdot 10^{-3} \cdot 100}{31 \cdot 10^{-3}} - 100 \neq 10 \Omega$$

