BONUS → SENSIBILIDAD

$$S_C^{\omega_0} = \frac{C}{\omega_0} \cdot \frac{d\omega_0}{dC} \qquad \omega_0 = \frac{1}{R_3 C} \qquad \frac{d\omega_0}{dC} = -\frac{1}{R_3 C^2}$$

$$S_C^{\omega_0} = \frac{C}{\omega_0} \cdot \left(-\frac{1}{R_3 C^2}\right) = \cancel{R_3 C^2}\left(-\frac{1}{\cancel{R_3 C^2}}\right) = -1$$

$$\boxed{S_C^{\omega_0} = -1}$$

$$S_{R_2}^{Q} = \frac{R_2}{Q} \frac{dQ}{dR_2} \qquad Q = \frac{R_2}{R_3} \qquad \frac{dQ}{dR_2} = \frac{1}{R_3}$$

$$S_{R_2}^{Q} = \frac{\cancel{R_2}}{\cancel{R_2}} \cdot \cancel{R_3} \frac{1}{\cancel{R_3}} = 1$$

$$\boxed{S_{R_2}^{Q} = 1}$$

$$S_{R_3}^{Q} = \frac{R_3}{Q} \cdot \frac{dQ}{R_3} \qquad Q = \frac{R_2}{R_3} \qquad \frac{dQ}{dR_3} = -\frac{R_2}{R_3^2}$$

$$S_{R_3}^{Q} = \frac{R_3}{R_2} R_2 \left(-\frac{R_2}{R_3^2}\right) = -1$$

$$\boxed{S_{R_3}^{Q} = -1}$$