

Ejercicio 10

$$C = 20 \text{ pF} \quad R = 10 \text{ k}\Omega$$

$$V_2 = V_1 g_m \cdot \frac{R \parallel \frac{1}{sC}}{1 + \frac{1}{sCR}} = \cancel{R} \cdot V_1 g_m \frac{R}{sCR + 1}$$

$$\frac{V_2}{V_1} = g_m \cdot \frac{\frac{1}{sC}}{s + \frac{1}{RC}} = g_m R = \frac{1/RC}{s + 1/RC}$$

$$H(s) = \frac{V_2}{V_1} = \boxed{g_m R} \cdot \boxed{\frac{1/RC}{s + 1/RC}}$$

Si $g_m R < 1$. Integrador
también Atenuador.