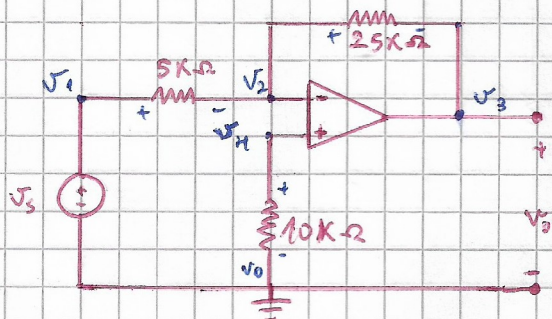


Calcule la ganancia V_0/v_s en el circuito.



$$v_1 = v_3$$

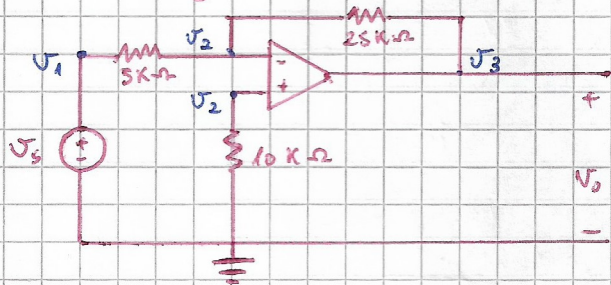
Nodo 2

$$\frac{v_1 - v_2}{5} - \frac{v_2 - v_3}{25} - \frac{v_2}{10} = 0$$

$$\frac{10v_1 - 10v_2 - 2v_2 - 2v_3 - 5v_2}{50} = 0$$

$$10v_1 - 17v_2 - 2v_3 = 0$$

Calcule la ganancia v_0/v_s en el circuito.



$5K\Omega$ y $25K\Omega$ están en serie

$$\frac{v_1 - v_2}{5} - \frac{v_2 - v_3}{25} = 0$$

$$v_2 = 0$$

$$\frac{v_1}{5} = -\frac{v_3}{25}$$

$$v_1 = -\frac{5v_3}{25} = -\frac{v_3}{5}$$

$$v_1 = v_s \quad v_3 = v_0$$

$$\frac{v_0}{5} = -v_s$$

$$\frac{v_0}{v_s} = -5$$