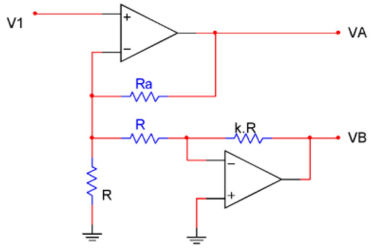
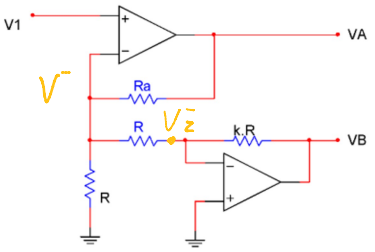
Ejercicio #2
Amplificador con **salida diferencial**. Obtener la expresión de VAB. Utilizar el valor Ra=R(k-1)/2



$\rightarrow V_{AB} = V_A - V_B$



Nodos

$$V^-.(G_a + 2G) - V_A.(G_a) - V_2^-.G = 0$$

$$V_2^-.(G + k.G) - V_B.\left(\frac{G}{k}\right) - V^-.G = 0$$

$V^- = V_1$

$V_2^- = 0V$

$$\begin{cases} V_1.(G_a + 2G) = V_A.G_a \rightarrow V_A = V_1.\dfrac{(G_a + 2G)}{G_a} \\ V_1.G = -V_B.\left(\dfrac{G}{k}\right) \rightarrow V_B = -V_1.\dfrac{G}{G}.k \end{cases}$$

$$V_{AB} = V_A - V_B = V_1.\left(1 + \frac{2G}{G_a}\right) + V_1.k = V_1.\left(1 + \frac{2G}{G_a} + k\right)$$

$$G_a = \frac{2G}{(k-1)}$$

$$\rightarrow V_{AB} = V_1.\left(1 + \frac{2G.(k-1)}{2G} + k\right) = V_1.(1 + k - 1 + k)$$

$$\boxed{V_{AB} = V_1.\,2k}$$