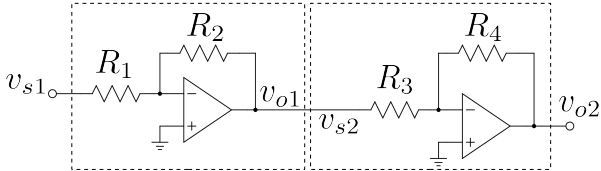


$$A_{v1} = -\frac{R_2}{R_1}$$

$$A_{v2} = -\frac{R_4}{R_3}$$



$$\begin{aligned} A_v &= \frac{v_{o2}}{v_{s1}} \\ &= \frac{v_{o2}}{v_{s2}} \times \frac{v_{o1}}{v_{s1}} \\ &= A_{v1} A_{v2} \end{aligned}$$