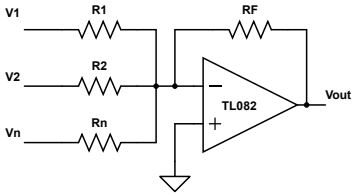
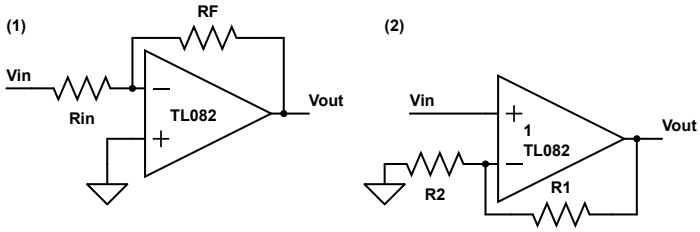
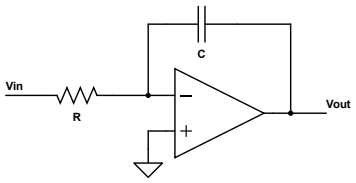


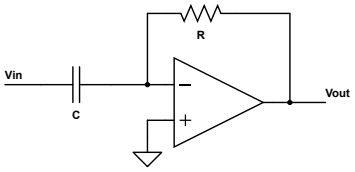


$$V_{out} = -\frac{R_F}{R_{in}} \cdot V_{in} \qquad \text{(1) Inverting}$$

$$V_{out} = (1 + \frac{R_1}{R_2}) \cdot V_{in} \qquad \text{(2) Non-inverting}$$

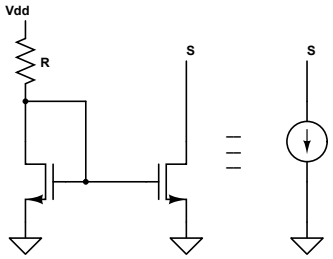
$$V_{out} = -(\frac{R_F}{R_1} \cdot V_1 + \frac{R_F}{R_2} \cdot V_2 \cdots + \frac{R_F}{R_n} \cdot V_n)$$





$$V_{out} = -\int_0^t \frac{V_{in}}{RC}\, dt + V_{initial} \qquad \text{Integrator / Low-pass}$$

$$V_{out} = -RC\frac{dV_{in}}{dt} \qquad \text{Differentiator / High-pass}$$



Mosfet current mirror circuit