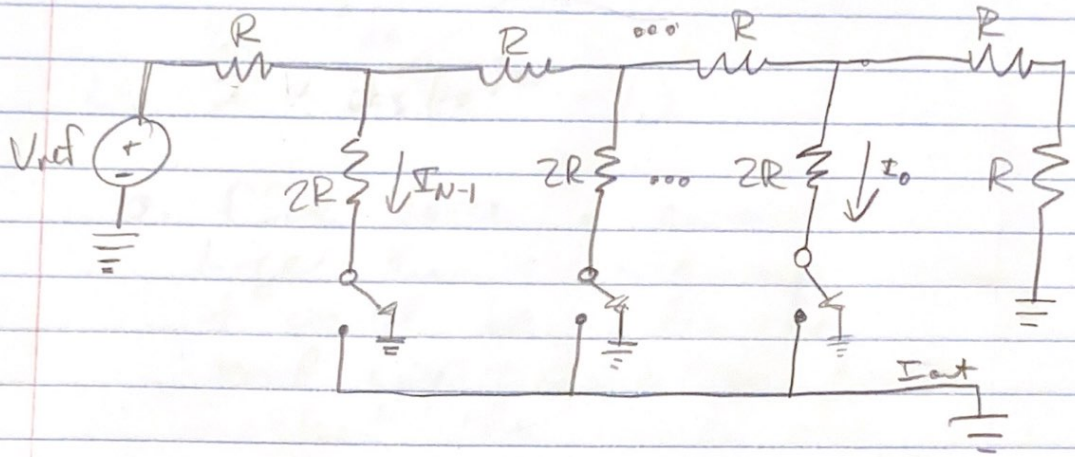
Post lab 1



$I_{N-1} = V_{ref}/4R$

$I_{N-2} = V_{ref}/8R$

$$I_n = V_{ref}\left(\frac{1}{2}\right)^{N-n} \cdot \frac{1}{2R}$$

$\left(\frac{1}{2}\right)^{N-i}$

$\frac{1^{N-i}}{2^{N-i}}$

$\frac{1^N 2^i}{1^i 2^N}$

$\frac{1}{2}\frac{2^i}{2^N}$

$$I_{out} = \sum_{i=0}^{N-1} b_i \cdot I_i$$

$$I_{out} = \sum_{i=0}^{N-1} b_i \cdot V_{ref}\left(\frac{1}{2}\right)^{N-i} \cdot \frac{1}{2R}$$

$$I_{out} = \frac{V_{ref}}{2R} \cdot \sum_{i=0}^{N-1} b_i \cdot \left(\frac{1}{2}\right)^{N-i}$$

$$I_{out} = \frac{V_{ref}}{2R \cdot 2^N} \cdot \sum_{i=0}^{N-1} b_i \left(2^i\right)$$