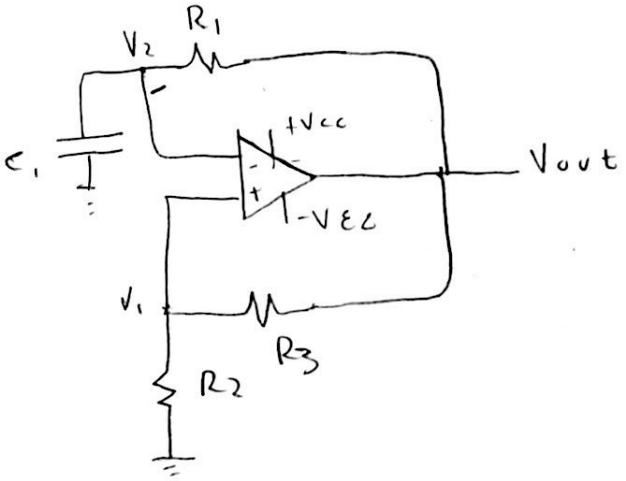
9. N.9 Ramírez Cotorreto Luis Fernando

M = 4150 Hz

Diseñar un oscilador de relajación para una frecuencia 4150 Hz



Asumimos...

$R_2 = R_3 = R_1 = 10k\Omega$

$R = \frac{10k}{20k} = \frac{1}{2}$

$$R = \frac{R_2}{R_3 + R_2}$$

$$f = \frac{1}{2 R_1 C_1 \ln\left(\frac{1+R}{1-R}\right)}$$

$$4150 = \frac{1}{2 \times 10k \times C_1 \times \ln\left(\frac{1+1/2}{1-1/2}\right)}$$

$$4150 = \frac{1}{2 \times 10k \times C_1 \ln(3)}$$

$$C_1 = \frac{1}{2 \times 10k \times 4150 \times 1.0986}$$

$$C_1 = 1.096 \times 10^{-8}\ F$$