

Sample Data

no calculations

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Teammates

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Instructions: Follow the steps on this worksheet, using your lab manual as a guide, unless directed to do otherwise by your lab instructor. Show at least one sample calculation for each step. Box final mathematical results. Do not forget the units.

$f = 30 \text{ kHz}$
 $V_{pp} = 6V$

Data

Measure the period of the input signal, and the actual values of Resistance, and Capacitance. Record your values in Table 1.

Table 1.- Parameters

Resistance (Ω)	Capacitance (F)	Signal's Period (s)	Angular Freq. (rad^{-1})
$R = 32.25 \text{ k}\Omega$	$C = 108.8 \text{ pF}$	$T = 33.33 \mu\text{s}$	$\omega =$

Measure the peak-to-peak voltage drop across the resistor and capacitor for each of the input voltages listed in Table 2. Record your values in the same table.

Table 2.- Voltage Drops

$\Delta V_{s p-p}$ (V)	$\Delta V_{R p-p}$ (V)	$I_{con p-p}$ (A)	$\Delta V_{C p-p}$ (V)	$I_{dis p-p}$ (A)
6V	2.6V		4.2V	
8V	3.6V		5.6V	
10V	4.4V		7.0V	
12V	5.4V		8.4V	
14V	6.2V		9.8V	
16V	7.0V		11.2V	
18V	8.0V		12.6V	