APRIL 15TH, 2019

"DIVISOR DE VOLTAJE Y DE CORRIENTE"

PRACTICE 6

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1CM10

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PRACTICE DEVELOPMENT

Build a circuit (showed in figure below) on the protoboard. Once built, select sine on the generator and set a value of 5 V_{RMS}, and set frequency as showed in table below. Measure values (see table below) and fill the blank spaces.

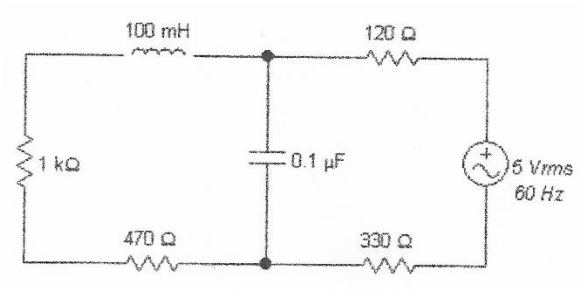


Table of Values

Frequency (Hz)	Measured Values	
	V_{RMS} in C_1	V_{RMS} in C_2
60	509 milli	800 milli
600	800 milli	2.43
6 K	624 milli	2.78
60 K	170 milli	750 milli

QUESTIONARY

WHAT IS REACTANCE AND IMPEDANCE?

When we talk about impedance, we talk about reactance, because impedance is based on Resistance + Reactance, and we use this to convert units of Henrys and Faradays to Ohms, because all of us know that every element of circuits has resistance. And Reactance tell us what kind of element is, positive for Henrys and negative for Faradays.

WHAT IS SUSCEPTANCE AND ADMITTANCE?

This is literally the inverse of the previous question, and works by this way: admittance is equal Resistance + Susceptance.

WHAT RELATION HAVE V_{RMS} AND V_{P-P}?

Well, has a relation, $V_{RMS} = (2^{\wedge}1/2) (V_{p-p})/2$

CONCLUSIONS

CABAÑAS BAXCAJAY JESÚS FRANCISCO

Mesh method for analysis of circuits is very useful in complex flat circuits, we observed that in this method, we have to apply Kirchhoff Currents Law and Ohm Law in every mesh, and then, after solving an equations system, we have every current for each mesh. It generally allows for the solution of a large network with fewer unknown values and fewer simultaneous equations.

HERNÁNDEZ VELÁZQUEZ ÁNGEL

The alternating current presents the same behavior as the direct current, only with the difference within its calculations. As it was observed in the oscilloscope, the capacitors affect the behavior of the wave a bit.

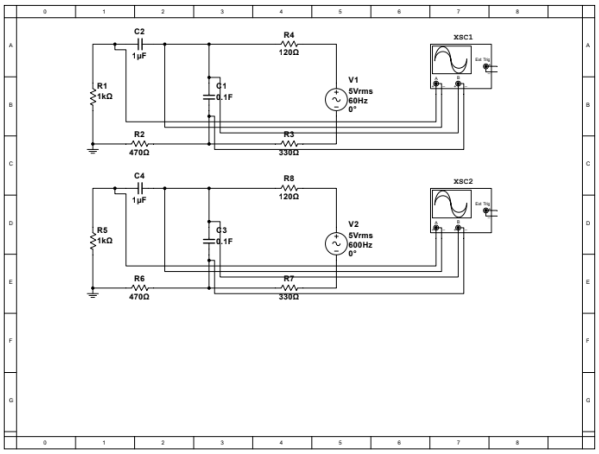
MARTÍNEZ CORONEL BRAYAN YOSAFAT

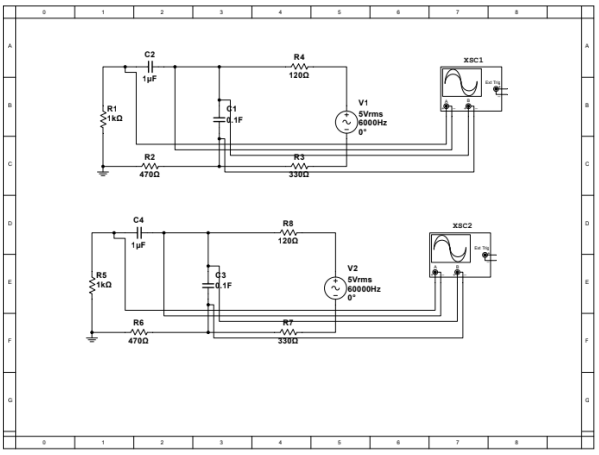
It is amazing that there are equations for these things, because this make us a bridge between this units. And that marks easier ways to calculate thing related to this. It is like Euler equation, a bridge between imaginary numbers and real numbers. We can combine knowledge of imaginary numbers in Electricity.

CALCULATIONS

There were no calculations.

SIMULATIONS





INSTITUTO POLITÉCNICO NACIONAL

ESCUELA SUPERIOR DE CÓMPUTO

LABORATORIO DE ANÁLISIS FUNDAMENTAL DE CIRCUITOS

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PRÁCTICA No. 6

"ANÁLISIS DE MALLAS EN CA"

GRUPO: 1CM10

EQUIPO: 10

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