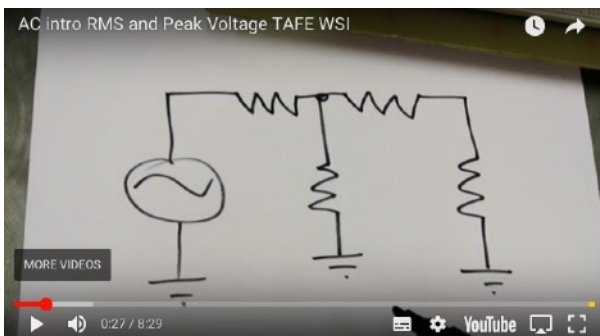


Resistors in AC Circuits Lab

H169A TAFE

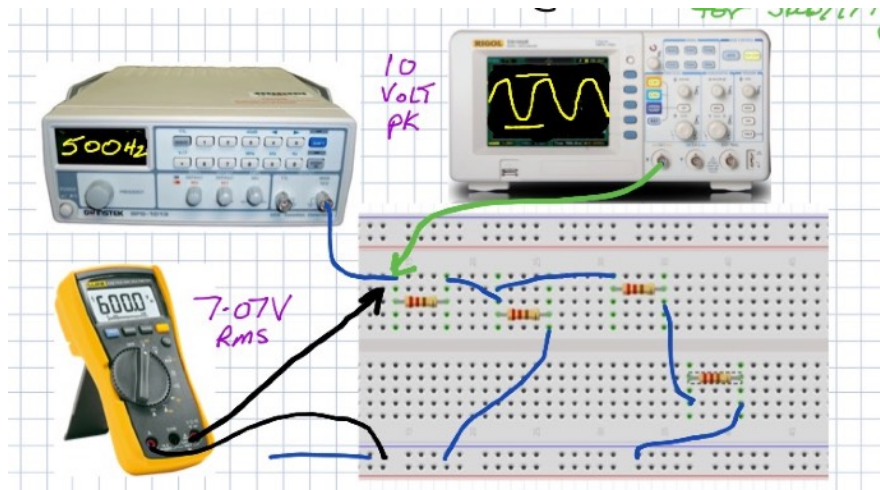
You will construct the following circuit on breadboard:



The idea of this lab is that we are going to check to see if voltage divider theory and ohm's law works in AC as it does in DC.

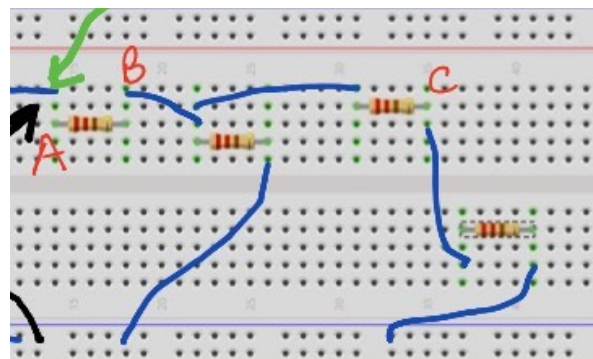
Each resistor is 220Ω
1/2 Watt.
We will use 500Hz @
10Vpk for the signal
generator output.

Here is the layout we
are using, as per the
video we watched.



We need to take various
measurements at each node. That is,
we will use both the oscilloscope and
the DMM.

There is a table over page which you
will need to write your measurements
into.



	Point A	Point B	Point C
Oscilloscope peak Voltage			
DMM RMS Voltage			

Was the RMS voltage on the meter the equivalent of what the theory should be for each Oscilloscope measurement?
(Peak Voltage X 0.707 = RMS)

Compare your voltage readings and comment as to why they might be different.

Do all DMM's read RMS correctly at high frequency?

Part 2

Repeat the Lab with a new frequency of 500kHz and log the results in the table below:

	Point A	Point B	Point C
Oscilloscope peak Voltage			
DMM RMS Voltage			

What has happened to the DMM voltage readings in part 2? Why (frequency response of the DMM? see DMM specs)