# RESPONSE OF A SERIES LRC CIRCUIT TO DIFFERENT FREQUENCIES

Work in groups with large whiteboards and remember to assign roles of taskmaster, cynic and recorder. Your group will be assigned a letter. Work efficiently - this is a 10-minute exercise.

Graph the driving voltage and the current in the series LRC circuit based on the graphical information given below. Include several cycles.
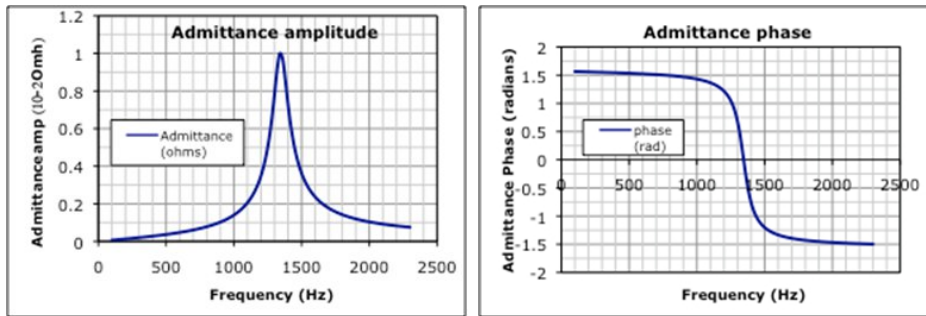
The table below gives the necessary information for each group's driving voltage $V(t) = V_0 e^{i(2\pi f + \phi_{voltage})t}$.

Frequency	Magnitude	Phase	
700 Hz	2 V	0	GROUP A
1400 Hz	1 V	0	GROUP B
2100 Hz	10 V	0	GROUP C

If you finish early, work on another frequency. Also, think about what would happen if all three voltages were applied simultaneously.